Northeastern University

School of Law
Library

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

HEARINGS

BEFORE THE

SELECT COMMITTEE ON CRIME
HOUSE OF REPRESENTATIVES

NINETY-SECOND CONGRESS

FIRST SESSION

PURSUANT TO

H. RES. 115, A RESOLUTION CREATING A SELECT COMMITTEE
TO CONDUCT STUDIES AND INVESTIGATIONS OF
CRIME IN THE UNITED STATES

PART 1 OF 2 PARTS

APRIL 26, 27, 28, 1971; WASHINGTON, D.C.

Serial No. 92-1

Printed for the use of the Select Committee on Crime

Y4.C86/3:92-1/pt1

US
9764
UNI

U.S. GOVERNMENT PRINTING OFFICE
60-296 WASHINGTON : 1971

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20402 - Price $1.50

NORTHEASTERN UNIVERSITY SCHOOL of LAW LIBRARY

SELECT COMMITTEE ON CRIME

CLAUDE PEPPER, Florida, *Chairman*

JEROME R. WALDIE, California
FRANK J. BRASCO, New York
JAMES R. MANN, South Carolina
MORGAN F. MURPHY, Illinois
CHARLES B. RANGEL, New York

CHARLES E. WIGGINS, California
SAM STEIGER, Arizona
LARRY WINN, Jr., Kansas
CHARLES W. SANDMAN, Jr., New Jersey
WILLIAM J. KEATING, Ohio

Paul L. Perito, *Chief Counsel*
Michael W. Blommer, *Associate Chief Counsel*

APR 20 1972

CONTENTS

Page
April 26 1
April 27 77
April 28 209
June 2 341
June 3 391
June 4 481
June 23 553

ORAL STATEMENTS BY GOVERNMENT WITNESSES

- Health, Education, and Welfare, Department of:
  - Food and Drug Administration:
    - Edwards, Dr. Charles C., Commissioner 393
    - Gardner, Dr. Elmer A., Consultant to the Director, Bureau of Drugs 393
    - Jennings, Dr. John, Associate Commissioner for Medical Affairs 393
  - Health Services and Mental Health Administration:
    - National Institute of Mental Health:
      - Besteman, Dr. Karst, Acting Director, Division of Narcotics and Drug Abuse 430, 439
      - Brown, Dr. Bertram, Director 430, 439
      - Martin, Dr. William, Chief, Addiction Research Center, Lexington, Ky 435, 439
    - van Hoek, Dr. Robert, Associate Administrator for Operations 430, 439
- Narcotics and Dangerous Drugs, Bureau of:
  - Ingersoll, Hon. John E., Director 344, 439
  - Lewis, Dr. Edward, Chief Medical Officer 344, 439
  - Miller, Donald E., Chief Council 344, 439
- Treasury, Department of, Hon. Eugene T. Rossides, Assistant Secretary, Enforcement and Operations 61

ORAL STATEMENTS BY PUBLIC WITNESSES

AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes), Dr. Daniel H. Casriel, director; accompanied by Rev. Raymond Massey and Dr. Walter Rosen 273
Brickley, Hon. James H., Lieutenant Governor, State of Michigan (on behalf of Gov. William G. Milliken) 614
Brill, Dr. Henry, director, Pillgrim State (N.Y.) Hospital 51
Carter, Hon. James, Governor, State of Georgia 608
Casriel, Dr. Daniel H., director, AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes) 273
Chambers, Dr. Carl, director, division of research, New York State Narcotic Addiction Control Commission 558
Davidson, Dr. Gerald E., associate director, Drug Dependency Clinic, Boston City Hospital 322
Drug Dependency Clinic, Boston City Hospital, Dr. Gerald E. Davidson, associate director 322
DuPont, Dr. Robert L., Director, District of Columbia Narcotics Treatment Administration 143
Eddy, Dr. Nathan B., Chairman, Committee on Problems of Drug Dependence, Division of Medical Sciences, National Academy of Sciences-National Research Council 29
Gearing, Dr. R. Frances, associate professor, division of epidemiology, Columbia University School of Public Health and Administrative Medicine 105
Georgia, State of, Gov. James Carter 608

Page
Gollance, Dr. Harvey, associate director, Beth Israel Medical Center 239
Hesse, Rayburn F., special assistant to the chairman, Federal-State relations, New York State Narcotic Addiction Control Commission 558
Holden, William, department head, MITRE Corp 80
Holton, Hon. Linwood, Governor, Commonwealth of Virginia 594
Horan, Robert F., Jr., Commonwealth attorney, Fairfax County, Va 255
Illinois Drug Abuse Program, Dr. Jerome H. Jaffe, director 210
Institute of Applied Biology, Rev. Raymond Massey 273
Jaffe, David, department staff, MITRE Corp 80
Jaffe, Dr. Jerome H., director, Illinois Drug Abuse Program 210
Jones, Howard A., commissioner, New York State Narcotic Addiction Control Commission 558
Kramer, Dr. John C., assistant professor, department of psychiatry and human behavior, department of medical pharmacology, University of California (Irvine) 642
Kurland, Dr. Albert A., director, Maryland State Psychiatric Research Center 505
McCoy, William O., Maryland State Psychiatric Research Center 506
Maryland State Psychiatric Research Center:
  Kurland, Dr. Albert A., director 505
  McCoy, William 506
  Taylor, Robert 507
Massey, Rev. Raymond, Institute of Applied Biology 273
Michigan, State of, Lt. Gov. James H. Brickley (on behalf of Gov. William G. Milliken) 614
MITRE Corp 80
  Holden, William, department head.
  Jaffe, David, department staff.
  Yondorf, Dr. Walter, associate director, national command and control division.
Narcotics Treatment Administration, District of Columbia, Dr. Robert L. DuPont, Director 143
New York State Narcotic Addiction Control Commission:
  Chambers, Dr. Carl, director, division of research 558
  Hesse, Rayburn F., special assistant to the chairman, Federal-State relations 558
  Jones, Howard A., commissioner 558
Pennsylvania, Commonwealth of, Gov. Milton Shapp 602
Resnick, Dr. Richard B., associate professor, department of psychiatry, New York Medical College 539
Rosen, Dr. Walter, New York, N.Y 273
Seevers, Dr. Maurice H., chairman, department of pharmacology, University of Michigan Medical School 9
Shapp, Hon. Milton, Governor, Commonwealth of Pennsylvania 602
Taylor, Robert, Maryland State Psychiatric Research Center 507
Villarreal, Dr. Julian E., associate professor of pharmacology, University of Michigan Medical School 483
Virginia, Commonwealth of, Gov. Linwood Holton 594
Yondorf, Dr. Walter, associate director, national command and control division, MITRE Corp 80

Exhibits Received for the Record

EXHIBIT NO. 1

American Medical Association, Dr. Richard S. Wilbur, deputy executive vice president, letter dated July 9, 1971, to Paul L. Perito, chief counsel, Select Committee on Crime 16

EXHIBIT NO. 2

Seevers, Dr. Maurice H., chairman, department of pharmacology, University of Michigan Medical School, curriculum vitae 22

EXHIBIT NO. 3

Defense, U.S. Department of, Dr. Louis M. Rousselot, Assistant Secretary, Health and Environment, letter dated June 28, 1971, to Chairman Pepper, with attachments 24

EXHIBIT NO. 4 (a) AND (b)

Eddy, Dr. Nathan B., Chairman, Committee on Problems of Drug Dependence, Division of Medical Sciences, National Academy of Sciences-National Research Council: Page
(a) Prepared statement 40
(b) Curriculum vitae 42

EXHIBIT NO. 5 (a) AND (b)

Brill, Dr. Henry, director, Pilgrim State Hospital, New York, N.Y.:
(a) Prepared statement 58
(b) Curriculum vitae 59

EXHIBIT NO. 6

State, Department of, David M. Abshire, Assistant Secretary for Congressional Relations, letter dated July 2, 1971, to Chairman Pepper, with attachments 70

EXHIBIT NO. 7

Treasury, Department of, Eugene T. Rossides, Assistant Secretary for Enforcement and Operations, curriculum vitae 75

EXHIBIT NO. 8 (a) AND (b)

Jaffe, David, department staff, MITRE Corp.:
(a) Supplemental statement 101
(b) Curriculum vitae 102

EXHIBIT NO. 9

Ulrich, William F., manager, applications research, scientific instruments division, Beckman Instruments, Inc., prepared statement (dated June 27, 1970) 103

EXHIBIT NO. 10 (a) AND (b)

Gearing, Dr. Francis R., associate professor, division of epidemiology, Columbia University School of Public Health and Administrative Medicine:
(a) Paper entitled "Successes and Failures in Methadone Maintenance Treatment of Heroin Addiction in New York City" 121
(b) Position paper entitled "Methadone—A Valid Treatment Technique" 138

EXHIBIT NO. 11 (a) THROUGH (e)

DuPont, Dr. Robert L., director, District of Columbia Narcotics Treatment Administration:
(a) Article entitled "Profile of a Heroin Addict" 166
(b) Study entitled "Summary of 6-Month Followup Study" 178
(c) Brief collection of statistical information entitled "Dr. DuPont's Numbers 183
(d) An administrative order setting forth guidelines for methadone treatment 183
(e) Article entitled "A Study of Narcotics Addicted Offenders at the D.C. Jail" 195

EXHIBIT NO. 12

Jaffe, Dr. Jerome H., director, Illinois Drug Abuse Program, curriculum vitae 236

EXHIBIT NO. 13 (a) THROUGH (c)

Page

Gollance, Dr. Harvey, associate director, Beth Israel Medical Center:
  (a) Article entitled "Methadone Maintenance Treatment Program" 249
  (b) Letter dated May 7, 1971, to Chris Nolde, associate counsel, Select Committee on Crime 253
  (c) Letter dated Nov. 11, 1970, to Dr. Vincent P. Dole, Rockefeller University from Carlos Y. Benavides, Jr., assistant district attorney, Laredo, Tex 254

EXHIBIT NO. 14 (a) THROUGH (g)

Casriel Dr. Daniel H., director, AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes):
  (a) Article entitled "The Case Against Methadone" 296
  (b) Article entitled "Casriel Institute of Group Dynamics, New York, N.Y." (discussion of Dr. Revici paper on Perse) 302
  (c) Submission entitled "Significant Therapeutic Benefits Based on Peer Treatment in the Casriel Institute and AREBA" 311
  (d) Introduction and explanation of the AREBA program 314
  (e) Reprint of article from the Medical Tribune-World Wide Report entitled "Therapy of Narcotic Addicts Sparks Psychiatric Theory" 315
  (f) Article reprinted from the Sandoz Panorama entitled "The Family Physician and the Narcotics Addict" 317
  (g) Curriculum vitae 320

EXHIBIT NO. 15

Davidson, Dr. Gerald E., associate director, drug dependency clinic, Boston City Hospital, study entitled "Results of Preliminary Perse Study" 331

EXHIBIT NO. 16

Beaver, Dr. William T., associate professor, department of pharmacology, Georgetown University School of Medicine and Dentistry, prepared statement 334

EXHIBIT NO. 17 (a) THROUGH (e)

Health, Education, and Welfare, Department of:
  (a) Jennings, Dr. John, Associate Commissioner for Medical Affairs, Food and Drug Administration, prepared statement 420
  (b) Edwards, Dr. Charles C., Commissioner, Food and Drug Administration, memorandum dated May 14, 1971, with attachments 422
  (c) van Hoek, Dr. Robert, Associate Administrator for Operations, Health Services and Mental Health Administration, prepared statement 430
  (d) Brown, Dr. Bertram S., Director, National Insititue of Mental Health, Health Services and Mental Health Administration, prepared statement 469
  (e) Steinfeld, Dr. Jesse L., Surgeon General, letter dated June 21, 1971, to Chairman Pepper 480

EXHIBIT NO. 18

Villarreal, Dr. Julian E., associate professor of pharmacology, University of Michigan Medical School, prepared statement 502

EXHIBIT NO. 19

Agriculture, Department Of, N. D. Bayley, Director of Science and Education, Office of the Secretary, letter dated July 23, 1971, to Chairman Pepper, re thebaine 510

EXHIBIT NO. 20

Kurland, Dr. Albert A., director, Maryland State Psychiatric Research Center, prepared statement 520

EXHIBIT NO. 21 (a) and (b)

Page
New York State Narcotic Addiction Control Commission, Howard A. Jones, Chairman-designate:
  (a) Letter dated June 22, 1971, to the committee, re summary of New York State drug report 578
  (b) Prepared statement 580

EXHIBIT NO. 22

Holton, Hon. Linwood, Governor, Commonwealth of Virginia, prepared statement 597

EXHIBIT NO. 23

Shapp, Hon. Milton, Governor, Commonwealth of Pennsylvania, prepared statement 606

EXHIBIT NO. 24

Carter, Hon. James, Governor, State of Georgia, prepared statement 612

EXHIBIT NO. 25

Brickley, Hon. James H., Lieutenant Governor, State of Michigan, prepared statement 617

EXHIBIT NO. 26 (a) THROUGH (f)

Letters and statements of officials of various cities regarding problems of drug abuse:
  (a) Boston, Mass., Mayor Kevin A. White 628
  (b) Detroit, Mich., Mayor Roman S. Gribbs 630
  (c) Hartford, Conn., Mayor George A. Athanson 631
  (d) New Haven, Conn., Mayor Bartholomew A. Guida 634
  (e) Philadelphia, Pa.:
    O'Neill, Joseph F., police commissioner 637
    Sofer, Dr. Leon, deputy health commissioner, office of mental health/mental retardation 638
  (f) Washington, D.C., Mayor Walter E. Washington 640

EXHIBIT NO. 27

Kramer, Dr. John C., assistant professor, department of psychiatry and human behavior, department of medical pharmacology, University of California (Irvine), prepared statement 662

EXHIBIT NO. 28

Statement submitted on behalf of S. B. Penick & Co., Merck & Co., Inc., and Mallinckrodt Chemical Works 670

EXHIBIT NO. 29

Becker, Arnold, public defender, Rockland County, N.Y., statement 677

EXHIBIT NO. 30

Andrews, Rev. Stanley M., Liberty Lobby, prepared statement 679

EXHIBIT NO. 31

Benson, Dr. Richard S., letter dated August 4, 1971, to Chairman Pepper, re transcendental meditation (with enclosures) 681

EXHIBIT NO. 32

Copy of letter sent to drug companies by Chairman Pepper re research concerning narcotic blockage and atagonistic drugs 690

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

MONDAY, APRIL 26, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:05 a.m., in room 2359, Rayburn House Office Building, Hon. Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Mann, Wiggins, Steiger, Winn, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order, please.

The House Select Committee on Crime today begins 7 days of public hearings which will cover four separate but related areas of narcotic addiction. We have been examining the complex problems of drug abuse and drug dependence since our inception as a committee on crime in May 1969. The heroin addiction crisis has reached threatening proportions. Our cities are beseiged. Our suburban areas have become infected. Even our rural areas are now feeling the shocking effect of this malady. Drug abuse and drug dependence have become so unmanageable that they are now responsible, both directly and indirectly, for contributing to 50 percent of the street crime in our Nation. While our population has increased 13 percent from 1960 to 1969, crimes against property increased 151 percent, and violent predatory crimes increased 130 percent.

In the face of this mounting evidence of spiraling street crime, our citizens are properly asking whether their Government is helpless, or corrupt, or even worse, totally incapable or unwilling to deal with a public health epidemic.

The national heroin addiction epidemic places an impossible burden upon an overburdened criminal justice system. This heroin epidemic forces our police to allocate their resources unequally in attempting to stem the illicit drug traffic. Testimony taken by our committee in New York, Washington, San Francisco, Boston, and Miami vividly demonstrated the fact that prosecutors must devote an inordinate amount of their time and staff to the investigation and prosecution of cases which are heroin connected. Our Crime Committee investigators have revealed that in New York, as in most of our major cities, the administration of criminal justice has been brought to a virtual standstill because of the volume of heroin related cases. Probation officers throughout the country have advised our investigators that they cannot begin to cope with the burdens imposed on their officers by heroin addiction probationers. For the same reason, our prisons also are overloaded and our detention facilities are strained beyond imagination. How can these institutions be expected to perform the proper function of confinement, which is rehabilitation? Correction and rehabilitation are not only hindered by the heroin epidemic, they are made virtually impossible. As a direct result, our alleged correction process has become a myth, and recidivism flourishes in every major city in our Nation.

The cost in terms of dollars is staggering. The cost in terms of lives lost is appalling. Truly, the heroin addiction epidemic has become a national tragedy.

If we attempt to compute the monetary loss resulting from this heroin epidemic, we must include the involuntary social costs; that is, the cost for law enforcement and the administration of criminal justice, the cost of production losses. Our statistical computation of the national dollar loss due to the heroin epidemic ranges from $1.5 to $2 billion annually. But this staggering amount of lost dollars pales into insignificance when we consider the loss of human life related to heroin addiction. Dr. Milton Helpern, chief medical examiner of New York City, told our committee in June that in 1960 there were 199 narcotic-related deaths in New York, but this figure soared to 1,006 deaths in 1969. Sadly, of the 1,006 narcotic-related deaths in 1969, 255 were teenagers. Heroin addiction is the leading cause of death in New York among adolescents and young adults between the ages of 15 and 35. The heroin death rate in New York is not typical for densely populated metropolitan areas.

In Dade County, Fla., my congressional district, 41 young people died from heroin last year, and nine deaths have already been reported as of this year.

The death rate for narcotism in Washington and Miami have attested to similar growth patterns.

You may wonder why our witness list today includes three outstanding scientists and medical clinicians but only one law enforcement official. You may wonder why a committee on crime is soliciting the views of the scientific and medical communities and not concentrating exclusively upon local police officials and narcotics agents. You may wonder why this committee is vitally concerned about the insignificant amount of Federal and State dollars devoted to research into the development of more effective blockage and antagonistic drugs, and synthetic substitutes for heroin and morphine.

It is precisely because we have taken a comprehensive view of the national and international drug abuse and drug addiction problem that we are today examining the capabilities of our scientific and medical communities to deal with this national heroin epidemic.

We have for too long relied solely upon law enforcement to control this public health menace. This is not to suggest that law enforcement should not play a vital role in what should be a national commitment to stem the tide of narcotic addiction and interdict the flow of illicit heroin into our country. However, we can no longer delude ourselves with the thought that law enforcement alone is capable of controlling or even substantially reducing the flow of illicit heroin into the United States or of reducing the number of addicts daily threatening our cities. Heroin addiction is clearly crimogenic. Information gathered by our investigators leads us to conclude that a substantial portion of our addict population must not only steal, but also deal, in order to pay for their voracious habits. Every addict dealer is a walking health menace.

Dr. Robert DuPont, of the District of Columbia Narcotics Treatment Administration, estimates that the average addict in the District gets illegal possession of $50,000 worth of goods a year to sustain his addiction.

The mounting evidence of the growing illicit flow of heroin into the United States compels the conclusion that we must search for new and imaginative answers. Our scientific and technological capabilities must be enlisted in the fight. No longer will the prosaic law enforcement approaches of the past serve as guides for future congressional conduct.

It is with this prospective that we open 7 days of hearings in which we plan to explore some brave new worlds in our struggle against the menace of a national heroin epidemic.

In January, our committee filed a heroin report with the Congress in which we recommended that our Government advocate and negotiate toward the total eradication of worldwide opium cultivation. We are convinced of the futility of relying solely upon overburdened and devoted customs and narcotics agents whom we have assigned the impossible burden of policing our borders and ferreting out heroin traffickers. Responsible law enforcement officials have told our committee that the combined efforts of our dedicated Federal and State narcotic agents result in seizures of less than 20 percent of the heroin smuggled into our country. Even if we were to double the size of our narcotic enforcement agencies and provide them with unlimited spending authorization, we might be able to increase our seizures 100 percent and thereby seize 40 percent of the heroin destined for the addicts' eager veins. But what about the remaining 60 percent? How can we possibly expect customs agents to search the 250 million people who pass through our borders each year? How can we possibly and reasonably expect the customs agents and narcotic officials to inspect the 65,310,807 cars and trucks, the 306,476 planes, and the 156,994 ships which entered our country last year?

We have been told by the customs and narcotic officials that on the ordinary size ship arriving at the Port of New York there are 30,000 places where heroin can be concealed.

On a local level, a recently concluded study by the New York State Investigations Commission revealed that in 1970, officers of the under-cover unit of the narcotic division of the New York City police made 7,266 buys of narcotics, and made 4,007 arrests in connection therewith. In all of these citywide arrests made in a year's time, a total of 4.97 pounds of highly adulterated heroin was seized. The cash used by the New York police to make these purchases totaled $91,197.50—that is over $1,100 an ounce for highly diluted heroin. Surely it cannot be argued that these arrests and seizures, at a tremendous cost of manpower and actual cash outlay, are having a significant impact in stemming the tide of organized narcotic trafficking in the city of New York.

It seems highly unlikely that the continued diligent efforts of dedicated narcotics agents, on all levels, will result in a significant increase in the rate of heroin seizures. It seems clear that if the opium poppy continues to be cultivated legally there will inevitably be illegal trafficking in the heroin derived from this poppy.

Consequently, our committee is today examining the question of whether we really need the opium poppy. If we can supply the pain-killing and cough-suppressing needs of our Nation by reliance upon domestically manufactured synthetic substitutes, then this Congress should take the lead today in banning the importation of all crude opium. It is to this end that we will devote a portion of this hearing.

We will then hear from law enforcement experts and scientific researchers about the possibility of policing such a worldwide ban. We also want to know whether our Federal law enforcement officials believe that this bold step would be helpful to them, not only in stemming the illicit flow of heroin into the United States, but also as a lever in bargaining with officials from opium-producing countries.

We then plan to look at the state of development of narcotic blockage and antagonistic drugs. Our interest is not confined to methadone, which looks promising but is also fraught with problems. Our interest is also in assessing the potential of developing longer lasting blockage drugs such as acetylmethadol, which is being used experimentally by Dr. Jerome H. Jaffe, in Chicago. We also want to know whether the so-called heroin antagonists are, as Dr. Stanley Yolles (former Director of the National Institute of Mental Health) commented, the most promising area in narcotics research. If this is true, our committee wants to know why more adidcts are not now being treated in rehabilitation centers throughout the country with nonaddicting cyclazocine and naloxone. What are the results of experiments with antagonist drugs? Do scientists really believe that these drugs offer a viable alternative to methadone maintenance and drug-free treatment modalities?

Additionally, as a committee on crime, we must not only be concerned with the humanitarian aspect of opiate addiction, but also the burden that such addiction imposes upon a society threatened and ravaged by crime directly related to this addiction. Is methadone maintenance an efficacious method of reducing crime perpetrated by addicts under treatment? Does methadone maintenance reduce the illegal activity of addicts and provide a vehicle to move these addicts back into our society? Is methadone maintenance safe if properly administered in a comprehensive rehabilitation program?

Do the deaths recently attributed to methadone—we have had six reported deaths in the last few weeks here in the District of Columbia—do the deaths recently attributed to methadone mean that we must reconsider the present posture of methadone maintenance or are these deaths a natural incident and to be expected with the rise of methadone treatment programs? These are just some of the questions which this committee wants answered during the course of these hearings.

We also want to know whether the guidelines recently promulgated by the Food and Drug Administration will serve as a barrier against wrongful, negligent, and unlawful practices by some physicians who have dispensed methadone. We want to examine the critical question of how can methadone, an admittedly dangerous synthetic drug, best be dispensed. We want to know whether methadone maintenance can truly be an effective therapeutic approach with the proper and costly support services.

Finally, this committee intends to survey and evaluate our present Federal and State expenditures relating to opiate research. We want to know if new drugs are on the horizon. Certainly the scientific genius of this country should be implored and employed to help solve this national calamity.

It might well be that at the conclusion of these 7 days we have raised more questions than we have answered. However, we can no longer afford to avoid the unpleasant evidence of the geometric growth in narcotic addiction. This tragedy, however, might well push us into a needed national mobilization of our medical and scientific resources to destroy the awful heroin traffic and to deal humanely with those who suffer from it. I know I speak for all the members of this committee when I conclude by stating that this committee is ready to make the sacrifice, financial and otherwise, which is necessary to wipe out this national health epidemic.

At this time, let us place in the record a copy of House Resolution 115, introduced January 3, 1971, and approved March 9, 1971, which created the Select Committee on Crime in the House of Representatives, described its purposes, set its goals, laid its jurisdictions, and delineated its functions.

(H. Res. 115 follows:)

92D CONGRESS
1ST SESSION

H. RES. 115

IN THE HOUSE OF REPRESENTATIVES

JANUARY 22, 1971

Mr. PEPPER (for himself and Mr. WIGGINS) submitted the following resolution; which was referred to the Committee on Rules

FEBRUARY 25, 1971

Reported with amendments, referred to the House Calendar, and ordered to be printed

MARCH 9, 1971

Considered, amended, and agreed to

RESOLUTION

Resolved, That, effective January 3, 1971, there is hereby created a select committee to be composed of eleven Members of the House of Representatives to be appointed by the Speaker, one of whom he shall designate as chairman. Any vacancy occurring in the membership of the select committee shall be filled in the same manner in which the original appointment was made.

SEC. 2. The select committee is authorized and directed to conduct a full and complete investigation and study of all aspects of crime affecting the United States, including, but not limited to, (1) its elements, causes, and extent; (2) the preparation, collection, and dissemination of statistics and data; (3) the sharing of information, statistics, and data among law enforcement agencies, Federal, State, and local, including the exchange of information, statistics, and data with foreign nations; (4) the adequacy of law enforcement and the administration of justice, including constitutional issues and problems pertaining thereto; (5) the effect of crime and disturbances in the metropolitan urban areas; (6) the effect, directly or indirectly, of crime on the commerce of the Nation; (7) the treatment and rehabilitation of persons convicted of crimes; (8) measures relating to the reduction, control, or prevention of crime; (9) measures relating to the improvement of (A) investigation and detection of crime, (B) law enforcement techniques, including, but not limited to, increased cooperation among the law enforcement agencies, and (C) the effective administration of justice; and (10) measures and programs for increased respect for the law and constituted authority.

SEC. 3. For the purpose of making such investigations and studies, the committee or any subcommittee thereof is authorized to sit and act, subject to clause 31 of rule XI of the Rules of the House of Representatives, during the present Congress at such times and places within the United States, including any Commonwealth or possession thereof, whether the House is meeting, has recessed, or has adjourned, and to hold such hearings and require, by subpena or otherwise, the attendance and testimony of such witnesses and the production of such books, records, correspondence, memorandums, papers, and documents, as it deems necessary. Subpenas may be issued over the signature of the chairman of the committee or any member designated by him and may be served by any person designated by such chairman or member.

Sec. 4. The select committee shall report to the House as soon as practicable during the present Congress the results of its investigations, hearings, and studies, together with such recommendations as it deems advisable. Any such report or reports which are made when the House is not in session shall be filed with the Clerk of the House.

Chairman PEPPER. The committee is very much pleased to call at this time Dr. Maurice H. Seevers, one of the Nation's most respected researchers in the field of drug abuse and drug addiction.

Dr. Seevers holds both a Ph. D. in pharmacology and an M.D. from the University of Chicago.

In the course of his distinguished career, Dr. Seevers has served as a research fellow in pharmacology at the University of Chicago; an instructor in pharmacology at Loyola of Chicago; associate professor of pharmacology at the University of Wisconsin; and as associate dean of the University of Michigan Medical School. Since 1942, he has served as professor of pharmacology and chairman of the department of pharmacology at the University of Michigan Medical School.

Dr. Seevers is a past president of the American Society of Pharmacology and Experimental Therapeutics, and has served as chairman of the executive committee of the Federation of American Societies of Experimental Biology.

He is a consultant to the National Research Council's Committee on Problems of Drug Dependence; a member of the American Medical Association's Committee on Alcoholism and Drug Dependence; and chairman of the American Medical Association's Committee on Research on Tobacco and Health.

Dr. Seevers has served as a member of the board of scientific counselors of the National Heart Institute; the Drug Abuse Panel of the President's Advisory Committee, White House Conference on Narcotics and Drug Abuse; and the Surgeon General's Committee on Smoking and Health.

Dr. Seevers presently serves as the American coordinator of the United States-Japan Cooperative Program on Drug Abuse; he is a member of the Expert Advisory Panel on Drugs Liable To Produce Addiction of the U.N.'s World Health Organization; and is a consultant to the Minister of Health and Welfare of Japan. Dr. Seevers was recently appointed by President Nixon to the President's Commission on Marihuana and Drug Abuse.

He has served on the editorial boards of numerous scientific journals and has received honors befitting a man of his wisdom and dedication, including three honors from the Government of Japan.

Dr. Seevers, we are indeed honored to have you here today, and very grateful to you for coming here.

Mr. Perito, our chief counsel. You may inquire.

Mr. PERITO. Thank you, Mr. Chairman. Dr. Seevers, I understand that you have a prepared statement.

STATEMENT OF DR. MAURICE H. SEEVERS, CHAIRMAN, DEPARTMENT OF PHARMACOLOGY, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Dr. SEEVERS. I do.

Mr. PERITO. Would you care to read that statement?

Dr. SEEVERS. Thank you, sir.

I will address myself primarily to the question of whether it is possible to substitute synthetic drugs for horticulturally derived substances.

The question currently before your committee, the substitution of synthetic narcotic analgesics for narcotic analgesics or their semisynthetic derivatives derived from opium is not a new one. Nor has it remained unanswered by competent authorities in the past. In 1951, the Committee on Drug Addiction and Narcotics—now the Committee on Problems of Drug Dependence—National Academy of Sciences-National Research Council, was confronted by the following questions by the Munitions Board (Minutes of the seventh meeting, January 15, 1951, "Bulletin of the Committee on Drug Addiction and Narcotics"):

> 1. What percentage of national requirements for opium derivatives could safely be replaced by synthetics?
> 2. If at some stage during a national emergency our stocks of opium should become exhausted and irreplenishable, how serious would be the consequences on the public health in view of the availability of synthetic substitutes?

The Committee answered thus—this was in 1951, 20 years ago:

> All uses of morphine, codeine, and other products and compounds derived from opium for systematic relief may be replaced adequately with substitutes now known. The only question for which a complete answer cannot be given at present is whether or not replacement of codeine for self-medication for cough relief with synthetic agents would be as safe as the use of codeine itself? An immediate and intensive effort should be directed toward the answer to this question of safety.

For several years prior to this response the Committee was besieged with requests to test new synthetic analgesics for their dependence liability on voluntary ex-addicts at the USPHS Hospital at Lexington. This facility was then, and still is, the only place in the world where such studies can be conducted on man.

The industrial output has always been far in excess of the capacity of this clinical unit.

Having utilized the rhesus monkey as a laboratory model of morphine dependence since my graduate student days in 1925, and found this species remarkably similar to man in its response to this class of drugs, I suggested to the committee that this animal might be utilized as a preliminary screen to reduce the number of drugs to be tested in man. After 3 years of development during which the results on monkeys were compared carefully with those obtained on humans at the Lexington facility, satisfactory testing procedures were available. Since that time, this monkey colony at the University of Michigan has become a world facility. Over 800 drugs of this class have been evaluated, representing the world output, including all of these which have reached the market. Some possess properties superior to those of morphine. Dozens of those tested, although not profitable for marketing at the present stage, could be used safely and effectively in man.

Thus 20 years after the limited affirmative of the NRC Committee the scientific answer today is an unqualified affirmative.

But other questions which relate to the practical application of this scientific affirmative cannot be answered with such precision and assurance. Whereas I make no claim to expertise in all of these areas, I have been involved on the scene over the last 30 years, and some comments may be pertinent. The elementary question, of course, is two-pronged.

One aspect is, would the total elimination of quota production by U.N.-recognized producing countries prevent the smuggling of non-quota production from unrecognized countries? The second aspect, would it be possible to control illicit production or smuggling of synthetics when it is currently impossible to control heroin?

The answer to these two questions is clearly in the negative without international cooperation, a most uncertain probability in view of the strong economic factors involved. May I remind you that the 10th session of the Economic and Social Council of the United Nations in 1956 came within one vote of adopting a resolution which would have prohibited the production of synthetic narcotics. This action was of such great concern to Commissioner Anslinger that he asked me to write a paper on the subject. This paper was entitled "Medical Perspectives on International Control of Synthetic Narcotics." This article raised the ire of representatives of the producing and manufacturing nations, especially France, Turkey, Yugoslavia, and India. They objected to many of the statements made in this article and for many reasons but especially the following:

> On the contrary, the scientific and medical advances in the synthetic and narcotic field have been so rapid that even today very few natural products are indispensable to the public health. The evidence in favor of the "synthetics" is so impressive when subjected to comparative analysis that the author is tempted to predict that the day is not far distant when the Commission will be confronted with resolutions which would propose to abolish forever the cultivation and production of all "horticulturally derived" narcotics.

Probably you have heard the following statistics but to refresh your minds: 163 tons of morphine were manufactured legally in 1969. Approximately 90 percent of this was converted into codeine. Codeine, although present naturally in opium, is present in such small amounts that it is not commercially practical to obtain codeine without converting it from morphine.

This quantity of morphine was produced from 1,219 tons of opium production and 28.274 tons of poppy straw. This was the licit production of opium. It is controlled by the International Control Board of the United Nations. Almost three-fourths of the total, 864 tons, was produced by India. The second largest producer was the U.S.S.R., 217 tons; the third largest, Turkey, with a production of 117 tons, less than one-tenth of the total. The combined production of Iran, Pakistan, Japan, and Yugoslavia was only 16.7 tons. If the assumption is correct, that most of the smuggled heroin which comes into the United States is derived from licit opium production, then it is clear that licit production greatly exceeds legitimate medical needs.

The 1970 report of the International Narcotics Control Board of the United Nations which furnished the above figures also contained the following statement:

> Yet if leakages from licit production could be virtually extinguished, smugglers would still be able to have recourse to opium which is produced illegally or beyond Government control. There are now extensive areas of such production and it is essential that, side by side with reinforcing monopoly controls over licit production, major efforts should be made to eliminate poppy cultivation in these areas. The regions chiefly involved are situated in Afghanistan, Burma, Laos, and Thailand; and there is also some production in parts of Latin America.

Other questions must be dealt with. In my opinion, placing restrictions on natural narcotic analgesics would inspire massive resistance by organized medicine and the allied professions. Having served on a variety of committees of the American Medical Association dealing with drugs for over 20 years, I am fully aware that physicians are extremely conservative about drug therapy. Codeine, for example, ranks high on the list of "most prescribed" drugs for the relief of cough and minor pains. It is a constituent of many mixtures which are prescribed for a variety of sedative and antispasmodic effects.

Whereas we do have effective substitutes for codeine which are known to be safe, they have made relatively little inroads in the prescribing of codine. Furthermore, they do not substitute for codeine in all respects, particularly since they lack its analgesic and mild sedative properties. Relative costs, although not a compelling factor, must be considered. Tax-free morphine is now one of the cheapest compounds available to medicine today.

The paramount question then which confronts you, in my opinion, is not whether synthetics will substitute for "horticulturally derived" narcotics but rather whether outlawing the latter in favor of synthetics will accomplish the objectives of significantly diminishing abuse of all narcotic analgesics or, in fact, of even heroin itself.

I say this because of several international situations. I just returned from Japan last week where I consulted with the Minister of Health. They know exactly how most of the heroin and opium arrive in Japan, largely down the Mekong River from the countries which I mentioned earlier, transshipped through Macao in Hong Kong. From there it is smuggled into their many ports, some by air, but mostly by sea to Kobe and Yokohama, et cetera.

The Japanese have done a good job of heroin control. In 1964, the Japanese had a sharp rise in heroin abuse. They make an all-out effort to control this. They have available to them the facilities which I doubt are available in the United States. In the first place, when they say an all-out Government effort they really mean it. This goes from the Prime Minister on down. In the last 4 or 5 years they have held several thousand public meetings all over Japan in which governors, states, mayors, even the Prime Minister participate. These are usually held in theaters or a public auditorium and may be attended by as many as 3,000 or 4,000 people. The hazards of drug addiction are graphically portrayed.

Furthermore, radio, television, newspapers, and other communication media have made an all-out campaign against heroin.

One of the things which I believe contributes significantly to their success is the fact that Japan has attacked one drug at a time rather than to try to hit the whole area of drug abuse. This goes back to 1955 when they had the world's largest epidemic of stimulant drug abuse. In that year there were 55,000 arrests of methamphetamine abusers. Two years later they had reduced this by strong countermeasures to a level of about a thousand arrests. This is the only extensive epidemic of drug abuse, with which I am familiar, in the world that has been controlled in such a short time. They later did a similar job of controlling heroin.

One of the situations involves different attitudes toward authority. In Japan, when an expert goes on television, such as a professor in a major university, people listen to him. I am certain this rarely occurs in this country. This raises the question whether we really have the capabilities of adopting successfully this type of approach.

But the Japanese have their problems as well. I bring this in incidentally because it doesn't bear on your major thrust but it is a drug abuse problem which must be dealt with.

Last year, Japan had 40,000 arrests for glue sniffing, with 200 deaths. That is one kind of substance which is almost impossible to control. To do so, we would have to control all sales from paint stores and purveyors of more than 50 related solvents. Lacquer thinner is used extensively in Japan by teenagers 16, 18 years old. So Japan is not without her problems, but they have done a remarkably good job in controlling amphetamines and heroin addiction. I was told by the Ministry that it had been reduced to a level where they though it was probably impossible to reduce it further. I think this is important—to recognize that control will never be absolute.

Chairman PEPPER. Mr. Perito, any questions?

Mr. PERITO. Dr. Seevers, I had the opportunity to look at your laboratory. The committee has not had that unique opportunity.

I wonder if you could kindly explain to the committee exactly what is being done in your primate laboratory and how that laboratory is financed?

Dr. SEEVERS. This laboratory has been in operation for 20 years. As I indicated—we have tested during this time some 800 drugs. This testing procedure started about 1953. We set it up originally on an entirely objective basis and it has always remained so. Dr. Nathan Eddy, who is here in the room, has been a long time collaborator on the project. He received these drugs on a confidential basis from industry. This facility has been available to those who wish to submit for testing. Dr. Eddy sent them to our laboratory by code number so that we do not know the identity of the supplier.

Once the tests have been made the information is channeled back to Dr. Eddy and he informs the manufacturer.

Until about 5 years ago, our testing procedure involved primarily drugs which would substitute for morphine or for heroin. In other words, we were looking for a drug which was superior to morphine in the sense it reduced respiratory depression, less side effects, less tolerance development, and less what we call, in general terms, addiction liability, the capacity to produce physical dependence.

We tested many compounds for 15 years and didn't find any that would fulfill most of these qualifications. When it was discovered that some of the antagonists, which I understand you are going to consider later, also possessed pain-relieving properties, somewhat like morphine, and yet did not produce physical dependence or lead to addiction, then a new concept was born. Since that time we have tested a hundred or more antagonists. We have done this with the objective of finding a substance which would still be useful as a pain reliever but did not have a capacity to produce physical dependence. I understand that is a class of drug that you intend to explore.

We maintain a colony of around a hundred monkeys. They receive an injection of morphine every 6 hours, day and night, right around the clock, 7 days a week. When we want to test a new drug we simply substitute for the morphine which they ordinarily receive. If this drug suppresses signs of abstinence we then can quantitate this in a rough way and say this drug has morphine-like properties. This has been a very useful test.

The number of drugs that have gone to Lexington during this period for test—and they were sent only to Lexington if they possessed some special properties that were superior to morphine—I would guess, maybe, is in the order of 40. I am not certain about the exact number. The facility at Lexington has never had the capacity to test more than six or eight drugs in a year.

The ultimate test, of course, is whether the effect in man is desirable or undesirable. Monkeys are not men, but close enough to it that it has been a very useful screen. We hope to continue it.

I feel certain that the direction which the research is taking today, moving to find a compound of antagonist type, ultimately will be successful. We have some good compounds now. Unfortunately, they are too short acting and have to be administered too often to fulfill the practical requirements as substitutes.

This class of drugs, incidentally, acts entirely opposite to methadone. Methadone simply suppresses and acts like heroin. These new drugs antagonize heroin and create a situation so that an individual taking the antagonist can take the heroin without any effect on him. In fact, in proper amounts, it completely wipes out any effects of heroin. In the long run, this is an area where money could be well spent. I think it is possible to find techniques to make available for practical use, substances that we currently have available.

Many other antagonists have been screened in our laboratory which are potential candidates for this type of action. But they have been of no particular interest to the manufacturers, so they were just dropped after testing. But a careful review of all antagonists that have been studied in the laboratory might uncover some longer acting compounds that might be useful.

Dr. Eddy, I am sure, will speak to this point, because he has been the one that has channeled the compounds to our department and can look at the problem with perspective.

Chairman Pepper. Doctor, you do think it is within the realm of feasibility to develop an antagonistic drug which for all practical purposes immunizes the addict against the euphoria that he ordinarily gets from taking heroin?

Dr. Seevers. I think so. Of course, one problem that you must recognize—a practical problem—is whether it is possible to take heroin addicts and force them to take this drug. This is analogous to the methadone situation. I don't believe you will ever get beyond the volunteer situation where the addict says "I want to get rehabilitated and will take the drug voluntarily." I suppose theoretically it would be possible to force any addict to take the drug. I have doubts whether it could be done from the enforcement point of view.

Mr. Perito. Dr. Seevers, could you explain how your laboratory is financed?

Dr. Seevers. Well, up until recently the National Research Council Committee of the Problems of Drug Dependence had collected money from a wide variety of industrial groups. This is, I believe, the only granting agency in the National Research Council. They have collected this money and have used it to support our laboratory and also from other clinical projects of which Dr. Eddy has been largely responsible. He can outline this better than I.

What is going to happen in the future I am not certain. I believe the Bureau of Narcotics and Dangerous Drugs is going to support the laboratory because they need this kind of information. But this has not been completely clarified as yet.

I will retire this year. Whether my successor, not yet appointed, is amenable to carrying on this program at Michigan is not yet known. But I am assuming that he is, because it is a well established and on-going program. Dr. Julian Villarreal, currently in charge of the program, I understand, will testify before your group. He is fully capable of taking over this program and has done a beautiful job in the last several years.

Mr. PERITO. Doctor, would it be possible for your laboratory to develop an effective synthetic analgesic which does not have addiction liability?

Dr. SEEVERS. Well, none of these antagonists have significant addiction liability. This is their advantage, of course. They do not evoke the cellular changes in the brain which is responsible for the phenomena of physical dependence. We have compounds at the present time that can be administered chronically and they do not produce physical dependence.

I am not quite sanguine enough to say that we could develop a compound that, if it has any subjective effects, would not be abused by some persons. We have on the market a substance of this type now which does not produce significant physical dependence: pentazocine. This compound has shown some small abuse. The number of people who will abuse this drug which does not produce subjective effects is very small. I think if we can reduce abuse to a minimal level, it is probably the best we can ever expect to do.

Chairman PEPPER. Have you had any deaths from the use of pentazocine?

Dr. SEEVERS. Not to my knowledge. There have been a few reported cases of drug dependence.

Mr. PERITO. Directing attention to your statement about synthetic substitutes for codeines; do we now have a single drug which will effectively substitute for codeine or do we have to use a combination of drugs?

Dr. SEEVERS. Well, we have a compound which is a little more potent: dihydrocodeinong. This has been used but since it is more potent, it is more subject to abuse. But it is not entirely synthetic.

The search for a codeine substitute has been one of the primary aims of industry in the last decade. It is easy enough to find substitutes for morphine because we have got a whole list of them. But those that have sufficiently low potency, that they could be used as codeine is used, with minimal addiction potential, is something we have not quite achieved.

Chairman PEPPER. Just one question. Doctor, how do you think we can best induce organized medicine to accept a synthetic substitute for morphine and codeine?

Dr. SEEVERS. I don't think we will have any trouble with morphine. The problem would be with codeine because it is so widely used. In fact, the amount of morphine used in this country is very small compared to the use of Demerol or other synthetics. The vast bulk of strong narcotic use is with drugs other than morphine at the present time.

Chairman PEPPER. Well, we expect to contact and elicit a response from the American Medical Association on this matter.

(The correspondence referred to above follows:)

[Exhibit No. 1]

AMERICAN MEDICAL ASSOCIATION,
Chicago, Ill., July 9, 1971.

MR. PAUL L. PERITO,
Chief Counsel, Select Committee on Crime, House of Representatives, Congress of the United States, Washington, D.C.

DEAR MR. PERITO: This is in response to your letter requesting our opinion concerning the substitutability of synthetic drugs for codeine and morphine. Attached to this letter is a brief review of various available synthetic drugs. As you will note from the conclusions stated therein, it is our opinion that at the present time no drug is fully satisfactory as a substitute for morphine or codeine.

We indeed appreciate the concern of the committee in its efforts to find a means of curtailing the drug abuse problem prevalent today, and I want to assure you that the medical profession is also desirous of attaining this goal. We do not believe, however, that removing morphine and codeine from the physicians' drug armamentarium is an appropriate remedy. We strongly recommend that these drugs should remain available to physicians so that their patients will not be deprived of the valuable benefits of these drugs.

Thank you for the opportunity of providing our views. and we would appreciate this letter and memorandum being included in the record of your hearings. If we can be of further assistance to the committee, we shall be pleased to do so.

Sincerely,

RICHARD S. WILBUR, M.D.

[Attachment]

MORPHINE SUBSTITUTES

Thousands of compounds have been synthesized and tested in the search for a substitute for morphine. In addition to analgesic potency, this search has focused on lack of addiction liability as a primary objective. To date, these efforts have not been completely successful, although some advances have been made.

At the present time, nine strong analgesics, that are prepared synthetically (i.e., not derived from opium) are available on the market. These are:

1. Levorphanol Tartrate (Levo-Dromoran).
2. Methadone Hydrochloride (Dolophine).
3. Meperidine Hydrochloride (Demerol).
4. Pentazocine (Talwin).
5. Alphoprodine Hydrochloride (Nisentil).
6. Anileridine Phosphate (Leritine).
7. Piminodine Esylate (Alvodine).
8. Fentanyl (Sublimaze).
9. Methotrimeprazine (Levoprome).

Meperidine was the first of this group to be introduced and although earlier it was thought to be nonaddicting, later it was found to have an addiction liability approaching that of morphine. Nevertheless, it is the most widely used of the strong analgesics. This may suggest that it is capable of substituting for morphine in many cases; however, it is recognized that meperidine is not an adequate substitute in certain cases, e.g., acute myocardial infarction.

Several of the available compounds are chemically related to meperidine, drug numbers 5–8 in the above list. These were prepared in the attempt to improve on the properties of meperidine. The actions of these drugs are generally similar to those of meperidine, and although each has individual characteristics, which limits its use in certain conditions, none is superior to meperidine, and like it none of these would be an adequate substitute for morphine in all cases.

Both levorphanol tartrate (Levo-Dromoran) No. 1 and methadone hydrochloride (Dolophine) No. 2, are effective strong analgesics and have other properties in common with morphine, including addiction liability; however, in practice, experience has indicated that neither would meet the requirements in all cases of an adequate morphine substitute.

The newest member of this group is No. 4 pentazocine (Talwin). It is the only one with a low addiction potential, being less than that of codeine; thus, it is not subject to the controls of the narcotic laws. Although pentazocine is an effective strong analgesic, as with all other drugs in this group, in certain cases, morphine would be preferable. Additional comparative studies are necessary to fully evaluate the potential use of this new drug, particularly in relation to the older drugs.

Compound 9, methotrimeprazine (Levoprome), differs chemically from all others of this group, being a phenothiazine derivative and related to the antipsychotic group of drugs. Although it does have strong analgesic properties, its side effects of marked sedation and hypotension greatly limit its uses and would prevent it from being an daequate substitute for morphine.

Most controlled studies with these drugs have been conducted to determine equivalent analgesic potencies (i.e., milligram dosage), and have been carried out in only a few types of pain, e.g., postoperative, cancer. Their broader usefulness in a variety of painful conditions has been determined by clinical experience.

On the basis of this evidence it is concluded that, taken as a whole, the group of available strong analgesics could be substituted for morphine in some cases; however, no single agent of this group is capable of substituting alone for morphine. At present, evidence from experimental studies are not available to define the preferred drug in each case. Many additional comparative studies and further experience are necessary, particularly with newer agents like pentazocine, to determine their ultimate efficacy in various conditions. Furthermore, there are certain situations, e.g., acute myocardial infarction, adjunct to anesthesia in cardiac surgery, pulmonary edema of heart failure, certain cancer patients, in which none of the synthetic analgesics are capable of satisfactorily replacing morphine.

CODEINE SUBSTITUTES

To act as a satisfactory substitute for codeine, a drug would need to have the following properties:

1. Analgesic activity.
2. Antitussive activity.
3. Oral effectiveness.
4. Low addiction potential.

Of the presently available drugs none possesses all of these properties; however, it is not necessary for a compound to have both analgesic and antitussive properties to be useful. Those drugs that have one or more of these properties are considered individually below from the standpoint of a potential codeine substitute.

Propoxyphene (Darvon) is an orally effective analgesic but it is less potent than codeine and would not provide pain relief comparable to codeine in many cases. Propoxyphene has low addictive liability but no antitussive activity.

Pentazocine (Talwin) lacks antitussive activity but possesses the other three properties necessary to substitute for codeine. However, insufficient comparative data are presently available to fully evaluate its potential as a substitute for codeine as an oral analgesic.

Several agents are marketed as antitussive agents; these are orally effective and have no or low addiction potential. The most widely used of this group is dextromethorphan. Although it and the others of this group may be adequate for relief of the milder types of cough, i.e., associated with the common upper respiratory infections, they would be inadequate for severe cough. For use in this situation, a strong analgesic with antitussive activity such as methadone may be required, but this drug has a greater addiction liability than codeine.

In conclusion, no other single drug has all the properties of codeine; thus, none would be a satisfactory substitute. That other drugs have some of the properties of codeine is recognized, but an adequate substitute for codeine's use either as an analgesic or antitussive is not available at present.

NARCOTIC ANTAGONISTS

The use of the narcotic antagonists in addition to morphine and codeine would be affected by a ban on opium and opium derivatives. Two of the three available narcotic antagonists are prepared from opium derivatives. These are nalorphine (Nalline) and naloxone (Narcan), the other, levallorphan (Lorphan) is prepared synthetically. The properties and uses of nalophine and levallorphan are similar and the latter could substitute for the former. However, the actions of naloxone differ from those of the other two agents and is considered the drug of choice in treatment of overdosage of a narcotic. Even more significant are the studies showing that naloxone has promise in the treatment of heroin addiction; thus, to ban the source of this drug would deprive the medical profession of a useful drug.

Chairman PEPPER. Mr. Mann, have you a question?

Mr. MANN. I am very much interested in the action of the Economic and Social Council of the United Nations in almost outlawing synthetic narcotics. You imply here that the economic factor was the main factor involved. What other motivating factors do you see in that almost-action?

Dr. SEEVERS. Well, I don't really know. This got down to a battle between the producing and manufacturing nations and those that were most interested in the synthetics. I don't know of any other, except traditional. Many of these changes have been in this business for a long time. Change would be resented in countries where producing has been going on for a long time. There is a manpower problem as well as substitution—finding some crop that would substitute for opium.

Mr. MANN. Do you think the medical community is prepared for the legislative outlawing of morphine?

Dr. SEEVERS. I don't believe so. Although morphine, itself, isn't used so much, I think the biggest rebellion is codeine. The reason I say that, is because we have had a somewhat analogous situation with amphetamines. Amphetamines as a class of drugs are, in my opinion, the most dangerous drugs of all available for abuse. We know from a practical point of view that the production of amphetamines greatly exceeds any legitimate medical need. But if you pose this question to organized medicine, which we have had occasion to do, even in our committee—I attended a meeting of the AMA committee in Chicago on Saturday of last week—even among the committee there are questions as to whether we could get along without these. I personally think we could.

But you will not find a consensus on these matters.

Chairman PEPPER. Excuse me. Will the gentleman yield right at that point?

Mr. MANN. Yes, sir.

Chairman PEPPER. Doctor, this committee last year offered an amendment in the House, which was later adopted by the Senate, proposing that there be a production quota system for amphetamines imposed by the Department of Justice on the recommendation of the Department of Health, Education, and Welfare. Do you think that was a proper proposal?

Dr. SEEVERS. Well, it is in the right direction. I am not sure whether it would accomplish the objective you seek.

The only country that has really been successful in controlling amphetamines, as I mentioned earlier, is Japan. Sweden has also adopted a complete ban in the sense that even a medical use is restricted to a few specialists. Three of the Australian states have done this recently. These nations have all done it in response to a rising and hazardous abuse problem with amphetamines.

I think a quota would be better than nothing, but I am not sure this would really solve the problem.

Chairman PEPPER. Mr. Mann, I interrupted you.

Mr. MANN. No further question.

Chairman PEPPER. Mr. Wiggins?

Mr. WIGGINS. Doctor, if Congress should ban the importation of morphine, should that law have an immediate effective date or should it have a delayed application?

Dr. SEEVERS. Well, off the top of my head, I would say that time is not very important. It might be delayed long enough to work out some alternative, but I don't see that much would be gained by delay, except possibly the codeine problem.

Mr. WIGGINS. Yes. You indicated that substitutes for morphine are available. Are they available in sufficient commercial quantities to meet the necessary commercial need or should the industry be permitted a period of time to get into that kind of production?

Dr. SEEVERS. I think that would probably be wise, but we have enough variety of these compounds of synthetic origin at the present time that I don't think we would have any significant shortage, if there was a reasonable time.

Mr. WIGGINS. Are those synthetic substitutes typically manufactured in the United States?

Dr. SEEVERS. They are. The principal one is sold under the commercial name of Demerol. I don't know what the current total consumption or total use of this substance is in the United States, but at one time about 50 percent of the strong analgesic was done with this drug. It is comparatively simple to produce. I don't think there would be a serious problem.

Mr. WIGGINS. If Congress should enact a statute prohibiting the importation of morphine could you suggest any exception we should make to that statute?

Dr. SEEVERS. Not really.

Mr. WIGGINS. Offhand, it occurs to me that you would like to continue your scientific studies and others doubtless would too.

Dr. SEEVERS. I think this could be done and it would be necessary. Morphine is still used as a standard by which we compare all other drugs. I think a certain amount of research should be carried on. But as far as general medical use is concerned, I can't think, offhand, of exceptions for medical use.

Mr. WIGGINS. Is it your feeling that if we excepted necessary scientific research we could impose an absolute ban on the importation of morphine?

Dr. SEEVERS. It would be possible. I am not sure it will solve your problem.

Mr. WIGGINS. Are the medical consequences tolerable?

Dr. SEEVERS. From a medical point of view, I think the answer is yes.

Mr. WIGGINS. That is all, Mr. Chairman.

Chairman PEPPER. Mr. Steiger?

Mr. STEIGER. Thank you, Mr. Chairman.

Doctor, did Japan treat a marihuana problem? I guess first, do they have a marihuana problem, and if they did, did they treat it?

Dr. SEEVERS. They have a rising marihuana problem. They have never had much abuse of marihuana in Japan, although it grows wild all over Japan. But they have become concerned about it now to the point where one of the people in the Ministry said they are thinking about cutting it off at the root right now, which implied there would be stricter penalties rather than lesser penalties.

A good bit of this problem has been brought back into Japan by returning American servicemen who are there for recreation. The Ministry is frank enough to say this, but abuse of marihuana is also spreading now to the younger people, and there have been a considerable number of seizures of smuggled hashish. Some of it is smuggled in from Korea and other areas, and also from Vietnam. So they have had an increasing number of users in the last couple of years.

Mr. STEIGER. It is illegal?

Dr. SEEVERS. It is illegal.

Mr. STEIGER. Have we developed, or is there any research which points to the potential development of any oral antagonists at this point? They are all injected?

Dr. SEEVERS. Practically all of them are injected. We have some that can be used. The trouble with these antagonists, and this has been the real problem, is that they produce unpleasant subjective responses, much like the hallucinogens. Individuals have weird dreams, and weird thoughts, and the like. This has been one of the principal objections to the use of the antagonist class of drugs.

Mr. STEIGER. I should think that would help sell them.

Dr. SEEVERS. These effects are not sufficiently pleasant. Most of them are the type of perceptive distortions that they really don't want.

Mr. STEIGER. Doctor, to your knowledge, how long have amphetamines been in use medically, not the illegal use or the abusive use, but how long have amphetamines been in use?

Dr. SEEVERS. It is back to the early 1930's as I recall.

Mr. STEIGER. That long?

Dr. SEEVERS. Yes.

Mr. STEIGER. Do you know if our military still issues the morphine ampules they used to issue to people in the field, or do we use Demerol, or one of these others?

Dr. SEEVERS. I don't know what the present state of the military is in this respect.

Mr. STEIGER. Thank you, Doctor.

Chairman PEPPER. Mr. Winn?

Mr. WINN. Thank you, Mr. Chairman.

Doctor, on page 6 you say: "Whereas we do have effective substitutes for codeine which are safe, they have made relatively little inroads in the prescribing of codeine."

My question is why?

Dr. SEEVERS. I suppose it is natural conservatism of medicine. Codeine has always been known traditionally as the weak analgesic. It has become, by general use, to be a constituent of many mixtures in small amounts, and medicine is one of the most conservative professions.

If a drug gets off on the wrong foot, medicine just looses interest in it. I refer to a compound we are all familiar with today, methadone.

When methadone was first introduced into the field by Lilly & Co. it was introduced under the trade name of Dolophine. They thought the drug was much more potent than it actually is. Dolophine was introduced on a 3-milligram dose basis whereas we know the drug has about the same potency as morphine, and the average dose is 10 milligrams. Dolophine fell flat. If Lilly had introduced it at a 10-milligram dose we might have had methadone substituting for morphine.

Methadone is one of the drugs that can satisfactorily substitute for morphine.

Mr. WINN. How many years ago did Lilly come out with that, sir?

Dr. SEEVERS. That was the midfifties, as I recall, just around the midfifties.

Mr. WINN. Would you encourage the pharmaceutical houses to get a press campaign or campaign put together so that they can use the substitutes for codeine?

Dr. SEEVERS. That is a $64 question. I don't know whether I could give an answer to that.

Mr. WINN. Well, I am saying do you think it would be wise to do that.

Dr. SEEVERS. For them to initiate a campaign?

Mr. WINN. Yes.

Dr. SEEVERS. I don't know who would do the initiating, whether the competitors would initiate or whether producers would do the initiating. I doubt the practicality.

Mr. WINN. Thank you, Mr. Chairman.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. No questions, Mr. Chairman.

Chairman PEPPER. Doctor, two questions. One, this committee has had testimony from many sources that there are some 8 billion amphetamines produced and distributed in this country every year, and we have been advised, as has the Committee on Interstate and Foreign Commerce, Subcommittee on Health, that about half of those go into the black market. Would you tell us what, in your opinion, is the medical need, if any, for amphetamines in this country?

Dr. SEEVERS. In my opinion the need is relatively small. I think this is a concensus of most people who reviewed the problem. The biggest use is in the treatment of obesity. At best, this use can be said to only temporarily be effective. The reason for this is that tolerance develops to its continued exposure. Bigger and bigger doses are necessary. With susceptible individuals, but not in all cases, they are likely to become dependent upon it.

Chairman PEPPER. Would you put the need in hundreds, or thousands, or millions?

Dr. SEEVERS. Compared to 8 billion?

Chairman PEPPER. Yes.

Dr. SEEVERS. Well, that is pretty difficult. The only thing I can say is that as far as I can determine, in Japan, Sweden, and the three Australian States, medicine hasn't been hurt very badly.

Chairman PEPPER. You would say the medical need is small?

Dr. SEEVERS. Comparatively small.

Chairman PEPPER. One other question. You have spoken about the probable reluctance or probable tardiness of the medical profession in accepting these synthetic substitutes for morphine and codeine. We all recognize we professional people are reluctant to change from a habit or course that we have been following. But would it be desirable to put in perspective the necessity of balancing the harm that this country derives from the abuse of these drugs, the heroin that is smuggled into this country, the terrible cost in lives and other expenditures as distinguished from the inconvenience or perhaps some of the imperfection in the use of these substitutes? Would it be desirable for the medical profession to balance those two interests in making this decision?

Dr. SEEVERS. I think the answer to that question is a tangential one. You would have to sell the profession on the notion that doing this would accomplish the objectives that you seek. In other words, when we have so many synthetic drugs available, if there is a market, for example, suppose you abolish illegal heroin or illegal morphine or wipe out all morphine, we know that there are many places in the world that have no respect for patents, they can make these synthetic compounds with relative simplicity and they are equally subject to abuse. I think the real question is whether you simply replace one bad situation with another one.

I think it would be necessary to convince the profession as a whole that the objectives that you seek would be accomplished.

Chairman PEPPER. Doctor, we are profoundly grateful to you for bringing your knowledge and experience to the benefit of this committee and helping our Congress and country try to find some solution to this terrible narcotics problem.

I think counsel wants to put in the record your original finding here.

Mr. PERITO. Mr. Chairman, may we include in the record the curriculum vitae of Dr. Seevers?

Chairman PEPPER. Without objection, it will be so received.

(Dr. Seever's curriculum vitae follows:)

[Exhibit No. 2]

CURRICULUM VITAE OF DR. MAURICE H. SEEVERS, CHAIRMAN, DEPARTMENT OF PHARMACOLOGY, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Date of birth, October 3, 1901, Topeka, Kans.

Education:
- Washburn College (Topeka, Kans.), 1920–1924 (A.B.)
- University of Chicago, 1924–1928 (Ph. D., pharmacology)
- University of Chicago (Rush Medical), (4 year certificate) 1930; (M.D.) 1932

Internship, University of Wisconsin General Hospital, 1930–1932

Appointments:
- Research fellow, pharmacology, Chicago, 1926–1928
- Instructor, pharmacology, Loyola (Chicago), 1929
- Assistant professor, pharmacology, Wisconsin, 1930–1934
- Associate professor, pharmacology, Wisconsin, 1934–1942
- Visiting associate professor, pharmacology (summer 1941), Chicago
- *Professor of pharmacology and chairman of the department of pharmacology, the University of Michigan Medical School, 1942–
- Associate dean, the University of Michigan Medical School, 1947–1950.

Memberships and committees:
- *National Research Council
  - Committee on Problems of Drug Dependence (formerly Committee on Drug Addiction and Narcotics) 1946–1968: Consultant—1968–
  - Subcommittee Anesthesiology (Committee on Surgery), 1948–1957

- *American Society of Pharmacology and Experimental Therapeutics, 1930–
  - Council, 1937; membership committee, 1942, 1943, 1944 (chairman); president, 1946, 1947; nominating committee, 1949, 1950 (chairman)
- *American Physiological Society, 1933–
  - Federation of American Societies of Experimental Biology Executive Committee, 1946, 1947 (chairman), 1948
  - Society for Experimental Biology and Medicine Council, 1950–1953
- *American Medical Association
  - Vice-chairman, Section of Experimental Medicine and Therapeutics, 1951–1952
  - Chairman, 1952–1953
  - Member, Council on Drugs (formerly Council on Pharmacy and Chemistry) 1952–1962
- * Member—Committee on Alcoholism and Drug Dependence—Council on Mental Health, 1964–
- *Chairman—Committee on Research on Tobacco and Health AMA–ERF, 1964–

Honorary memberships:

- *American Society of Anesthesiology.
- *Japanese Pharmacological Society.

Committees and consultantships:

- Member—Board of Scientific Counselors, National Heart Institute, National Institutes of Health, 1957–1960.
- Member—Drug Abuse Panel, President's Advisory Committee—White House Conference on Narcotic and Drug Abuse, 1962–1963.
- Member—Surgeon General's Committee on Smoking and Health, Department of Health, Education, and Welfare, 1962–1963.
- Chairman—Committee on Behavioral Pharmacology—Psychopharmacology Service Center-National Institutes of Health, 1964–1968.
- *American coordinator—U.S. Japan Cooperative Program on Drug Abuse—National Science Foundation and Japan Society Promotion of Science, since 1964.
- *Member—President's Commission on Marihuana and Drug Abuse, 1971–72 (established by Public Law 91-513).

Editorial:

- Board of publication trustees, American Society for Pharmacology and Experimental Therapeutics, 1948, chairman, 1949–1961.
- Editorial board, Physiological Reviews, 1943–1951.
- Editorial board, Proceedings Society for Experimental Biology and Medicine, 1944–1959.
- Editorial committee, Annual Review of Pharmacology, 1959–1962.

International:

- *WHO (United Nations) Expert Advisory Panel on Drugs Liable to Produce Addiction, 1951–
- Second Medical Mission to Japan, May-June, 1951 Unitarian Service Committee and Department of the Army.
- U.S. National Committee for International Union of Physiological Science, 1955–1959.
- Chairman American team—Conference on Physiologic and Pharmacologic Basis of Anesthesiology—Japan, April–May 1956.
- Consultant—Minister of Public Health of Thailand—Bangkok, May 2–17, 1959.
- *Consultant, Minister of Health and Welfare of Japan, Tokyo, 1963–.

Awards:

- Third Class of the Order of the Rising Sun of Japan, 1963.
- Distinguished Service Award Washburn University Alumni Association, 1964.
- Second Class—Order of the Sacred Treasure of Japan, 1967.
- Henry Russell Lecturer—The University of Michigan, 1967.
- J. Y. Dent Memorial Lecturer—Kings College—University of London, 1968.
- Certificate of Commendation from Minister of State, Director-General, Prime Ministers Office, Japanese Government, October 1969.

---

*Current appointments.

(The following letter was received for the record.)

[Exhibit No. 3]

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., June 28, 1971.

Hon. CLAUDE PEPPER,
House of Representatives,
Washington, D.C.

DEAR MR. PEPPER: This is in reply to your letter of June 7 in which you requested our views on the use of opium derivative drugs in the military medical services and statistical data representing procurement and issues of these drug items, as well as synthetic pharmaceuticals with similar effects.

"A consensus of military medical opinion on the need for opium derivative drugs to treat casualties in the field and in hospitals." It is the consensus of the Military Medical Departments that opiate drugs have an established place in medical practice and cannot adequately be replaced by any other substances. The need for opiate drugs is predicated on the principle that the highest possible quality of medical care should be rendered to military personnel and their dependents. While it is true that there are many occasions when the synthetic analgesic drugs would suffice, there is also a substantial number of indications where the opiate drugs are clearly superior. For example, it has not been demonstrated that the synthetic drugs are equal in efficacy to the opiates in myocardial infarction, acute pulmonary edema, and in relief of pain in the severely wounded.

"A consensus of military medical opinion on (a) the use of, and (b) the effectiveness of synthetic analgesic substitutes to treat casualties in the field and in hospitals." The synthetic analgesics have a significant and increasing usefulness in treating casualties in the field and in hospitals. However, there remains a substantial proportion of casualties in whom the opiate drugs are clearly preferable. In addition, many of the synthetic analgesics have only a very short period of experience with their use and it would be unwise to restrict medical practice by relying solely on these newer compounds.

"A consensus of military medical opinion on the advisability of eliminating opium derivative drugs and the substitution of synthetic analgesics." It would be inadvisable to eliminate opiate drugs from medical and surgical practice. It is evident that the amount of opiate drugs used could be greatly curtailed by substitution of the synthetic drugs. However, the total removal of opiates from medical practice would result in less than optimum treatment of countless individuals having life-threatening diseases and injuries.

Statistical data representing procurements and issues of centrally managed opium derivative drugs, as well as synthetic pharmaceuticals with similar effects, is attached as enclosure 1. This data represents the latest 4 complete fiscal years. Data prior to fiscal year 1967 is not available. Miss Hastings of your staff agreed to the submission reflecting this period of time.

Although most of the opium derivative drugs are procured and issued to the military medical services by the Defense Supply Agency, larger medical facilities locally procure nonstandard, slow moving opium derivative drugs. These facilities are all registered with the Bureau of Narcotics and Dangerous Drugs.

Attached as enclosure 2 is a copy of the regulation "Safeguarding of Sensitive, Drug Abuse Control, and Pilferable Items of Supply" as per your request.

The Veterans' Administration does not procure these items from the Department of Defense. The Veterans' Administration has its own procurement system and buys these items directly from vendors.

There are no separate regulations or security precautions applicable to synthetic analgesics versus opium derivatives. The governing factor in this instance is whether the Bureau of Narcotics and Dangerous Drugs has classified the item in one of five schedules for controlled substances. If so, security measures are required; however, these items are dispensed by prescription only.

I trust this information will be of assistance to you and the committee.

Sincerely,

LOUIS M. ROUSSELOT, M.D., F.A.C.S.

PROCUREMENT AND ISSUE DATA FOR CENTRALLY STOCKED OPIUM DERIVATIVE DRUGS AND SYNTHETIC ANALGESICS WITH SIMILAR EFFECTS

The information in this enclosure is qualified as follows:

1. Procurement quantities are indicated by the fiscal year in which contracts were awarded (or delivery orders processed). Actual delivery to DSA depots and subsequent issue to DSA customers does not normally correspond to these fiscal years. In addition tlo Army, Navy and Air Force units, the DSA has interagency agreements to supply medical materiel directly to the following Federal agencies: NASA, USAID, D.C. Government, U.S. Coast Guard, FAA and GSA. Certain Army, Navy and Air Force units also supply directly to other Federal and foreign agencies. For example, the Republic of Vietnam Armed Forces and USAID in Vietnam are supplied with medical materiel from the U.S. Army Medical Depot in Okinawa.
2. In some cases, procurement and issue data do not appear to be related. This can occur when items are being phased out of the distribution system or new items are added to the armamentarium. Further, changing mobilization reserve materiel objectives may be responsible.
3. Only those forms of propoxyphene containing at least 65mg are included.
4. Methadon is not managed centrally as yet.

	Fiscal years—			
	1967	1968	1969	1970
6505-114-8950—Codeine sulfate tablets, NF, 32 mg., 20's:				
Procured by DPSC[1]	24,700			
Issued to:				
Army	4,797	3,638	1,818	1,454
Navy	1,678	297	203	22
Air Force	640	366	126	52
MAP	20	4	7	474
Other[2]	3	1	7	[3] 15,593
6505-114-8975—Codeine sulfate tablets, NF, 32 mg., 100's:				
Procured by DPSC	92,016	75,816	96,336	
Issued to:				
Army	9,525	47,481	55,344	14,811
Navy	9,420	8,980	9,405	8,470
Air Force	9,088	9,514	10,581	9,759
MAP	9,863	9,508	5,407	22,012
Other[2]	14,987	236	2,614	2,221
6505-616-8979—Codeine phosphate, USP, 1 oz. (28.35 gm.):				
Procured by DPSC	2,592	11,808	2,304	
Issued to:				
Army	5,306	6,016	2,043	4,111
Navy	1,752	1,126	1,312	664
Air Force	576	1,753	2,106	1,433
MAP	144	21	25	85
Other	19	76	109	27
6505-864-8092—Codeine phosphate injection, USP, 30 mg. cartridge-needle unit 1 cc., 20's:				
Procured by DPSC[1]		9,600	11,430	
Issued to:				
Army	2,610	3,278	5,366	1,260
Navy	1,367	994	1,532	418
Air Force	1,071	1,166	2,057	1,085
MAP	0	19	63	86
Other[2]	0	9	56	171
6505-864-8091—Codeine phosphate injection, USP, 60 mg., cartridge-needle unit 1 cc., 20's:				
Procured by DPSC	4,230	2,040	11,100	
Issued to:				
Army	1,181	1,542	1,410	840
Navy	1,293	1,482	2,009	771
Air Force	732	882	1,211	889
MAP	0	14	40	25
Other	0	14	56	59
6505-929-8986—Hydromorphine, HCl injection, NF, 2 mg. cartridge-needle unit 1 cc., 20's:				
Procured by DPSC	10,200			2,520
Issued to:				
Army	0	1,483	1,160	927
Navy	0	586	1,274	800
Air Force	19	750	1,196	1,440
MAP	0	0	1	0
Other	0	9	24	15

See footnotes at end of article.

	Fiscal years—			
	1967	1968	1969	1970
6505–132–3030—Paregoric, USP, 1 pt. (473 cc.):				
Procured by DPSC[1]	69,792	------------	39,936	64,368
Issued to:				
Army	25,773	23,598	92,776	3,960
Navy	2,691	4,499	3,715	2,618
Air Force	7,497	6,484	5,706	4,658
MAP	18,813	4,017	3,556	7,658
Other[2]	496	339	424	168
6505–129–5000—Morphine sulfate tablets, USP, 8 mg., 20's:				
Procured by DPSC	------------	------------	------------	------------
Issued to:				
Army	4,428	235	65	------------
Navy	852	323	21	------------
Air Force	110	34	78	------------
MAP	50	5	4	------------
Other	73	920	32	------------
6505–129–5500—Morphine sulfate tablets, USP, 16 mg., 20's:				
Procured by DPSC	------------	------------	------------	------------
Issued to:				
Army	3,924	663	3,181	------------
Navy	996	233	1,411	------------
Air Force	1,265	793	318	------------
MAP	3,460	1,772	0	------------
Other	4,432	20	4	------------
6505–129–5517—Morphine injection, USP, 16 mg., 1.5 cc.:				
Procured by DPSC[1]	226,250	------------	------------	------------
Issued to:				
Army	2,096	25,387	39,892	11,160
Navy	2,974	3,744	2,132	12,203
Air Force	36,206	4,599	11,549	9,132
MAP	0	50	370	105
Other[2]	2,500	0	0	18,000
6505–129–5518—Morphine injection, USP, 16 mg., 1.5 cc., 5's:				
Procured by DPSC	258,500	------------	------------	------------
Issued to:				
Army	22,782	24,805	25,193	5,259
Navy	11,601	4,057	12,897	6,363
Air Force	6,019	604	1,162	292
MAP	12,921	6,023	8,719	15,603
Other	1,483	949	4,112	1,840
505–597–0890—Morphine sulfate tablets, USP, 10 mg., 20's:				
Procured by DPSC	------------	------------	------------	------------
Issued to:				
Army	597	201	178	------------
Navy	594	530	152	------------
Air Force	537	310	191	------------
MAP	20	0	0	------------
Other	0	0	0	------------
6505–864–7617—Morphine injection, USP, 8 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC[1]	4,500	4,380	3,360	2,500
Issued to:				
Army	1,606	1,757	1,672	905
Navy	741	1,391	973	618
Air Force	588	614	695	784
MAP	0	28	5	1
Other[2]	1	9	53	146
6505–864–7618—Morphine injection, USP, 15 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC	5,820	28,335	5,640	------------
Issued to:				
Army	3,626	11,737	6,133	3,299
Navy	2,053	3,592	2,138	2,549
Air Force	2,559	3,257	2,978	3,265
MAP	5	4	33	9
Other	267	185	217	141
6505–864–7619—Morphine injection, USP, 10 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC	3,660	9,420	10,590	4,328
Issued to:				
Army	2,623	3,734	4,247	2,816
Navy	1,750	2,300	2,473	2,515
Air Force	1,753	2,139	2,652	3,020
MAP	0	20	2	8
Other	1	92	59	50
6505–435–8477—Pentazocine lactate injection. Equivalent of 30 mg. of pentazocine, 1 cc., syringe-needle unit 10's:				
Procured by DPSC[1]	------------	------------	------------	5,184
Issued to:				
Army	------------	------------	------------	3
Navy	------------	------------	------------	13
Air Force	------------	------------	------------	2
MAP	------------	------------	------------	2
Other[2]	------------	------------	------------	7

See footnotes at end of article.

	Fiscal years—			
	1967	1968	1969	1970
6505-689-5513—Pentazocine lactate injection. Equivalent to 30 mg. of pentazocine per cc., 10 cc.:				
Procured by DPSC			43, 200	46, 656
Issued to:				
Army			678	19, 789
Navy			179	18, 432
Air Force			669	13, 281
MAP			20	154
Other			276	799
6505-477-4666—Fentanyl citrate injection. Equivalent to 0.05 mg. of fentanyl per cc., 2 cc., 12's:				
Procured by DPSC				1, 296
Issued to:				
Army				
Navy				
Air Force				
MAP				
Other				
6505-477-4667—Fentanyl citrate and droperidol injection, 5 cc., 12's:				
Procured by DPSC [1]				1, 728
Issued to:				
Army				
Navy				
Air Force				14
MAP				
Other [2]				
6505-484-6183—Fentanyl citrate and droperidol injection, 2 cc., 12's:				
Procured by DPSC				1, 728
Issued to:				
Army				
Navy				
Air Force				9
MAP				
Other				
6505-958-2364—Propoxyphene HCl capsules, USP, 65 mg., 500's:				
Procured by DPSC	35, 520	28, 080	18, 336	17, 664
Issued to:				
Army	9, 741	13, 841	12, 629	11, 865
Navy	3, 303	4, 953	5, 758	8, 304
Air Force	5, 255	5, 719	6, 821	7, 248
MAP	0	44	57	92
Other	98	161	348	165
6505-913-7907—Propoxyphene HCl, aspirin, caffeine, and phenacetin capsules, 100's:				
Procured by DPSC [1]	10, 224		3, 660	500
Issued to:				
Army	2, 994	49	904	2, 749
Navy	129	213	30	188
Air Force	33	41	116	307
MAP	0	34	60	24
Other [2]	0	524	793	2, 465
6505-784-4976—Propoxyphene HCl, aspirin, caffeine, and phenacetin capsules, 500's:				
Procured by DPSC	78, 048	158, 208	131, 688	27, 792
Issued to:				
Army	31, 782	68, 946	71, 995	29, 776
Navy	14, 392	23, 853	31, 896	28, 162
Air Force	20, 399	25, 837	31, 928	32, 927
MAP	0	441	962	985
Other	653	562	2, 318	840
6505-082-2651—Meperidine HCl injection, NF, 75 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC		4, 680	7, 380	2, 640
Issued to:				
Army	1, 313	3, 178	2, 298	1, 938
Navy	936	716	1, 587	528
Air Force	1, 195	2, 045	1, 694	1, 354
MAP	0	11	36	15
Other	0	1	181	84
6505-082-2652—Meperidine HCl injection, NF, 75 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC [1]	13, 200	8, 730	19, 200	8, 820
Issued to:				
Army	2, 401	4, 986	7, 151	6, 346
Navy	1, 505	2, 362	2, 900	3, 355
Air Force	2, 455	2, 809	3, 658	4, 749
MAP	0	18	6	6
Other [2]	225	167	102	133

See footnotes at end of article.

	Fiscal years—			
	1967	1968	1969	1970
6505-126-9375—Meperidine HCl tablets NF, 50 mg., 100's:				
Procured by DPSC	13,536	5,904	6,480	7,920
Issued to:				
Army	4,052	1,311	2,862	1,222
Navy	2,295	1,460	1,573	1,095
Air Force	2,048	1,919	1,956	1,586
MAP	1,788	1,456	140	1,458
Other	631	38	39	352
6505-126-9360—Meperidine HCl injection NF, 50 mg., per cc., cc:				
Procured by DPSC	93,744	63,720	59,184	
Issued to:				
Army	20,298	34,803	24,870	6,892
Navy	24,448	16,144	13,709	8,977
Air Force	17,907	12,305	8,681	5,228
MAP	4,392	5,378	48	3,696
Other	3,455	128	165	89
6505-864-8093—Meperidine HCl injection, NF, 100 mg., cartridge-needle unit, 1 cc. 20's:				
Procured by DPSC [1]	3,830	3,300	12,720	4,740
Issued to:				
Army	1,920	2,792	2,830	2,060
Navy	1,926	754	1,338	1,011
Air Force	1,558	2,152	2,339	1,657
MAP	0	625	1,106	2,555
Other [2]	2	98	224	386
6505-864-8094—Meperidine HCl injection, NF, 50 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC	21,270	13,860	27,840	18,180
Issued to:				
Army	4,616	8,846	10,873	9,836
Navy	2,715	2,825	3,167	3,295
Air Force	3,410	3,963	5,146	6,228
MAP	0	100	64	51
Other	157	150	175	190
6505-864-8095—Meperidine NCl injection, NF, 100 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC	4,200	9,300	18,540	8,888
Issued to:				
Army	4,243	7,654	5,305	5,817
Navy	3,177	3,399	2,980	3,244
Air Force	2,825	2,830	3,714	4,066
MAP	30	119	8	1
Other	148	138	60	44
6505-864-8096—Meperidine HCl injection, NF, 50 mg., cartridge-needle unit, 1 cc., 20's:				
Procured by DPSC [1]	11,340	4,260	10,020	4,140
Issued to:				
Army	766	3,651	4,481	1,139
Navy	615	1,269	1,289	1,396
Air Force	855	2,383	2,240	1,977
MAP		339	7	65
Other [2]	2	136	132	147

[1] The difference between quantities procured and total issued is caused by the exclusion in this tabulation of the inventory on hand (beginning FY 1967) and the inventory required to be retained as depot stocks at the end of FY 1970.

[2] Other type customers are non-DoD. In order of user magnitude: AID and Public Health about the same, Coast Guard, State Department. etc.

[3] Item deleted May 1, 1970. This quantity transferred to property disposal.

(Enclosure 2 was retained in the committee files.)

Chairman PEPPER. Our next witness is a man so eminently qualified to speak on the subject of drug abuse that I could spend a good part of the rest of this hearing just listing his qualifications.

The committee is pleased and honored to welcome Dr. Nathan B. Eddy.

Dr. Eddy holds a doctor of medicine degree from the Cornell University Medical School and an honorary doctor of science degree from the University of Michigan.

Dr. Eddy began his career with the practice of medicine in New York City in 1911. Since then, he has been an instructor of physiology at McGill University; an assistant professor of physiology and pharmacology at the University of Alberta; visiting investigator at the department of pharmacology, Cornell University Medical School; visiting investigator and lecturer, department of physiology, the University of Michigan; consultant biologist in alkaloids to the U.S. Public Health Service; principal pharmacologist, National Institutes of Health; chief of the Section of Analgesics, Laboratory of Chemistry, National Institute of Arthritis and Metabolic Diseases of the National Institutes of Health. The last position he held before he supposedly retired in 1960. Since his retirement, he has served as a consultant on narcotics to the National Institutes of Health; the Executive Secretary and currently Chairman of the Committee on Drug Addiction and Narcotics of the Medical Division of the National Research Council; consultant to the Bureau of Narcotics and Dangerous Drugs; consultant to the New York State Narcotic Addiction Control Commission, and consultant to the Le Dain Commission on Nonmedical Uses of Drugs.

Dr. Eddy is a member of numerous honorific and professional associations and has served on countless committees concerned with drug addition, both in this country and for the United Nations.

Dr. Eddy's awards, all well deserved, are legion. Some of the groups which have honored him are the U.S. Public Health Service, the World Health Organization, the Eastern Psychiatric Research Association, and the American Social Health Association.

Dr. Eddy has authored and coauthored more than 150 books and articles on a variety of subjects.

Dr. Eddy, with his considerable experience in pharmacology and physiology, will testify today on the present availability of synthetic drugs to replace morphine and codeine.

It is indeed a great honor to have you with us today, Dr. Eddy.

Mr. Perito, our chief counsel, will inquire.

Mr. PERITO. Dr. Eddy, I understand you have a prepared statement.

STATEMENT OF DR. NATHAN B. EDDY, CHAIRMAN, COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, DIVISION OF MEDICAL SCIENCES, NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL

Dr. EDDY. Mr. Chairman, I prepared a statement for the committee which might be called a series of thumbnail sketches of potential alternatives to morphine and codeine.

I think it would take considerable time and be repetitious of a good deal of technical detail to read that statement. With your permission, I would prefer to make some pertinent statements of pertinent facts and principles and afterward elaborate, if you wish, and answer questions so far as I can on points which have not been covered.

Chairman PEPPER. Proceed as you will, Dr. Eddy.

Dr. EDDY. It is a privilege indeed to be here today and speak on the question of the replaceability of the natural opiates direct and indirect. By direct I mean, of course, morphine and codeine which occur naturally in opium. By indirect, the substances which are derived from morphine and codeine by modification of one sort or another, such as hydrocodone, hydromorphone, oxymorphone, oxycodone, and heroin, which, of course, is paramount in the problems of drug dependence.

Let me start off by saying unequivocally that the natural opiates, direct and indirect, can be replaced by synthetic substances presently available. I am not alone in this belief. Dr. Seevers has already so stated and I believe Dr. Brill will concur in this opinion. Also, as Dr. Seevers indicated, the Committee on Drug Addiction and Narcotics, now the Committee on Problems of Drug Dependence of the National Research Council, has on at least four occasions adopted resolutions, the sense of which is the same.

Referring to the descriptions which were in the statement prepared for the committee on specific alternates, these cover a wide range, not so wide strictly speaking from the chemical standpoint, but a wide range in potency when we think in terms of dosage only. There are also some variations in the surrounding properties of the various compounds. We have compounds which are several times—I am talking about compounds which are presently available on the market—we have compounds several times more potent than morphine; levorphanol, for example, which is like morphine in all essential respects and equally dependence-producing. We have phenazocine, somewhat different chemically, which is also several times more potent than morphine and shows a slightly reduced dependence potential. It has not become very popular because the difference is not as great quantitatively as hoped in the beginning.

We also have potential substitutes which are less effective dosewise than morphine. The most popular of these is Demerol, or meperidine, or pethidine. It has 40 or 50 different names around the world. It is only about one-sixth to one-eighth as potent as morphine, thinking only of dosage. It is equally dependence-producing. As a matter of fact, it is my personal opinion relative to its pain-relieving properties it has a greater dependence potential than does morphine itself.

Then we have pentazocine, which is quite different from Demerol in its chemistry and belongs to a new class of compounds to be referred to in somewhat more detail in a moment. It is about one-fourth as potent as morphine. It has essentially no physical dependence potential or such physical dependence potential as it possesses is of a different type from that of morphine. It does have subjective effects which a few people have found to their liking, especially if they have been abusing other drugs and there are a small number of cases of abuse of pentazocine reported. Pentazocine is being accepted to a very considerable extent by the medical profession; its sale is increasing and it is proving to be a quite effective compound.

There is a difference in these compounds with respect to their relative oral and parenteral use, oral and subcutaneous or intramuscular use. The first I mentioned, levorphanol, is equally effective by mouth as by injection. Practically all of the others are less effective by mouth than by injection. Pentazocine perhaps is another exception, the range between its oral and parenteral dose is narrower than for most of the other compounds.

I have been involved in this problem of trying to find, or trying to disassociate, the dependence properties and the useful pain-relieving properties of compounds which we could use in place of morphine for some 40 years. It has been a most frustrating effort for most of that time until we discovered, partly by accident, as the result of a suggestion I made in another connection, that certain chemical modifications of morphine-like substances produced at the same time the ability to relieve pain or possessed at the same time the ability to relieve pain and the ability under some circumstances to antagonize the effects of morphine itself. The first of them was nalorphine. Many like compounds, or many compounds in this class, have been made since then, as Dr. Seevers pointed out. These antagonists, the compounds with antagonistic potentiality, have little or no physical dependence capacity. Such physical dependence capacity as they possess is of a different type from that produced by morphine. Their subjective effects are different and in most people are exceedingly unattractive. We call these compounds agonist-antagonists and pentazocine is an important example.

To reiterate, I believe that it is possible to replace the natural opiates with synthetic substances. The question is: Is it practical? At the present time I think the answer has to be "no," because we have to take so many other things into account other than the mere ability to replace one compound with another without interfering with medical practice or without damage to the patient. As a matter of fact, we might even, with some of these substitutes, improve the conditions with respect to the patient.

Again, the answer is "no," if we are thinking simply in terms of saying you cannot have the natural opiates, but must use the synthetics. We banned heroin in this country from medical practice, but that did not ban it from the illicit market. The illicit market in heroin is still increasing.

As I said, I have been working in this field for 40 years, hoping that some day we could say we can get along without opium. Today we can say that, medically, we can get along without opium, but I am not at all sure that we should say it in just that way, without qualification. If I may make a suggestion, I think we can say to the world at large, the time has come when we should be putting every effort into economic and technical assistance to the opium farmer so that he can live by the production of other crops and without the production of opium. Meanwhile, we are going to continue to study the agonist-antagonists because I think pentazocine can be further improved upon and we are going to continue to pursue other lines of chemical investigation, which in some instances already promise compounds which are not antagonists but which have reduced the dependence potential.

Some people like practically every drug, or for practically every drug there are some people who like it, no matter how adverse it seems to most of us. We call this craving or liking a psychic dependence. I am very pessimistic about our ever eliminating completely psychic dependence. We can and we have eliminated the ability—or produced compounds which have eliminated the ability—to produce physical dependence. We can do something about the individuals liking for other things, like his abuse of other things, and we can improve the situations so far as drug abuse in medical practice is concerned.

We can, I think, most helpfully go back to the source, the opium source, and try to do more than we have done about the overproduction, especially the illicit production, of opium to reduce the availability of compounds for abuse.

Chairman PEPPER. Doctor, did I understand you to say that you thought we could now scientifically develop an antagonistic drug to heroin which would give, as Dr. Seevers indicated, a relative immunity of sensation to the addict in the taking of heroin?

Dr. EDDY. We already have such compounds.

Chairman PEPPER. If that could be put into mass use, then that would to a large degree remove the desire for the taking of heroin, I presume, from the addict?

Dr. EDDY. Well, the answer isn't quite as simple as that. We can antagonize the effects of heroin. We can prevent the individual from getting a response to his taking of heroin. We don't necessarily, by the same token, remove his desire to take heroin. We can prevent the heroin from having any effect upon him, but we don't necessarily, at the same time, prevent him from wanting to have that effect.

Chairman PEPPER. Mr. Wiggins wishes to ask a question.

Mr. WIGGINS. Doctor, I am confused. Why would a person take two drugs that would have the net effect of taking none? I gather that there are antagonists that neutralize heroin?

Dr. EDDY. That is right.

Mr. WIGGINS. Which has the effect of not taking heroin.

Dr. EDDY. That is right.

Mr. WIGGINS. So why not, just in terms of the logic of it, avoid taking heroin in the first instance?

Dr. EDDY. Well, they generally do. If you can persuade them to take the antagonist even though they want the subjective effects of the heroin or another opiate. The problem is to get them to take something which they know is going to prevent them from getting the kick they want. The people who have been put on the antagonists, they don't necessarily take your word for it that they are not going to get any kick out of their heroin, and they may go back and try heroin until they find that this is futile. If they have got any sense they are going to say, "Well, I am throwing my money away." And as long as you can keep them on the antagonist they cannot get an effect out of heroin and hence have no reason to abuse heroin or to go out on the street and steal televisions and cars and the rest of it to buy heroin.

So you have improved the situation from that standpoint for them and yourself. But you have to persuade them to take the antagonist.

Chairman PEPPER. Excuse me. Could you add something to that antagonistic drug to cause the patient to get an unfavorable reaction if, after taking the antagonistic drug, he took heroin?

Dr. EDDY. Well, you can do it the other way around. If he is taking heroin and you give him the antagonist you certainly give him an unpleasant reaction. I don't know any instance where he necessarily gets an unpleasant reaction from the heroin he attempts to take after he has taken the antagonist. He may get an unpleasant reaction from the antagonist itself until you stabilize him on it.

Mr. WIGGINS. Does the antagonist have any effect?

Dr. EDDY. For a person dependent on an opiate, the antagonist precipitates withdrawal symptoms, very markedly so. It is the same as if you had taken all of the heroin or opiate away from the addict, just like that. He goes into withdrawal when you give him an antagonist if he is taking an opiate.

Mr. WIGGINS. How much success are you having in getting people to do this voluntarily?

Dr. EDDY. Well, it hasn't been tried too widely. There are two difficulties, at least. One is that the most potent antagonist we have, which has been tried, cyclazocine, is likely to produce unpleasant reactions when you start to administer it. Dr. Seevers referred to these. They are quite disagreeable. You have to proceed rather cautiously with most people to stabilize them on the cyclazocine. They, too, become tolerant, accustomed to the drug so that these unpleasant reactions disappear and you can stabilize them, keep them in a state where they can take cyclazocine day by day and be free from any adverse symptoms. You have got to completely withdraw them from their heroin, discontinue their heroin administration completely for several days before you start the antagonist.

That is one drawback for that particular antagonist. The other one which has been used to the greatest extent is naloxone, which does not produce any unpleasant reactions at all. It is as nearly as we know, a pure antagonist. It has no morphine-like effects whatsoever. Cyclazocine does have morphine-like effects under certain circumstances. It is a powerful analgesic. It is on the order of 40 times more potent as an analgesic than morphine itself. But to attain its analgesia you are liable to produce, with a great many people, these unpleasant side reactions. So it is not a practicable analgesic.

Naloxone is not an analgesic at all. It only produces antagonism. It is quite effective when injected, but it is very poorly effective by mouth and the doses required to stabilize the individual to a state where he would not get a reaction from taking heroin requires very large oral doses, and the duration of action is short.

But we have other antagonists in the offering, which we hope to be able to develop, of longer duration and hopefully as effective as cyclazocine, without the unpleasant reactions. This is the field in which a great deal of effort is being put at the present time. Ideally, it would seem to me the way to go about it. Practically, as I say, the difficulty is to persuade the patient to begin and to continue the administration of the antagonist; but he must, initially, give up his opiate entirely and he must take a compound which he knows is going to prevent him from getting any of the reactions that he has been wanting. So far as this can be done, the program is successful.

Chairman PEPPER. Doctor, Mr. Perito has a question.

Mr. PERITO. Dr. Eddy, do these antagonists have an opiate base?

Dr. EDDY. No.

Mr. PERITO. They do not?

Dr. EDDY. No; not necessarily.

The original, the first antagonist that we are familiar with, nalorphine, is a modified morphine. You can make similar modifications in various of the synthetic bases which are used as analgesics, in levorphanol, for example. You can make a similar substitution in levorphanol and get a more potent antagonist than nalorphine. You can similarly substitute in the synthetic phenazocine the same group and get a very powerful antagonist with very intense subjective reactions, so intense that we haven't done very much with it. Or you can modify either of these bases in other ways and get lesser degrees of antagonism with lesser subjective effects. Pentazocine is such a compound. It is, at the same time, an agonist; that is, a morphine-like substance which produces the morphine-like relief from pain and so on, as well as being a mild antagonist. So that it can prevent the development of morphine-like dependence or precipitate withdrawal phenomena if given to a person dependent on morphine.

Mr. PERITO. I assume the same would be true with cyclazocine and naloxone.

Dr. EDDY. Cyclazocine is a modification of one of the synthetics. Naloxone, on the other hand, is derived by modification of a morphine derivative. Therefore, theoretically, we would require the availability of opium in order to produce naloxone. Actually there is another variety of poppy which produces one of the opium alkaloids in its natural life history without producing morphine, and work is underway to develop this particular variety of poppy to get the starting material to make naloxone without having, at the same time, an oversupply of morphine.

Even though naloxone is morphine based, if I may put it that way, it is theoretically possible to come to it without having to go through morphine production.

Chairman PEPPER. Doctor, if we could eliminate the legitimate need for the growing of the opium poppy, and, if, as you suggested, we could provide a comparable income to the grower of the opium poppy by substituting some other crop that would not have these injurious effects, do you think that would be in the public interest of this Nation and the nations of the world?

Dr. EDDY. Very definitely so. If you reduce the overall production you must increase the trend toward the use of the substitutes.

If I might refer to the question that was asked of Dr. Seevers with respect to the international situation when we came so close to banning the synthetics some years ago, it was largely an economic question. The opium producing countries were afraid of the loss of their income, of course, and they put forth the claim, or made the assertion, that if we permitted the synthetics, we would develop a greater problem than we had in controlling opium, since we would develop the opportunity for illicit production of the synthetics. Well, that problem has not developed and the manufacturing countries argued that they did not expect that it would develop.

Chemistry is not all that simple. If we were to cut off the supply of opium completely we might be faced with some problems along those lines, because we know now that there are illicit manufacturers of barbiturates and amphetamines in addition to the licit manufacture. So we can't eliminate completely the possibility of illicit manufacture of synthetics if we turn to the synthetics in place of natural alkaloids.

Chairman PEPPER. Doctor, from your knowledge of the general field and of the sums available for carrying on the very commendable research in finding a synthetic substitute for morphine and codeine, and also for the finding of an antagonistic drug to heroin, are the funds presently available adequate to carry on the research programs that you think are desirable?

Dr. Eddy. No.

Chairman Pepper. Therefore, would you think additional Federal funds would be in the public interest for these research programs?

Dr. Eddy. Yes.

Chairman Pepper. Mr. Mann?

Mr. Mann. Thank you.

Pursuing this economic problem just one step further, would there be any allegation on the part of the opium-producing countries at this point, or any justifiable allegation that the United States would have any monopoly on the production of the synthetic drugs, or that the cost of producing these synthetic drugs on a legitimate basis would make the outlawing of opium economically bad for all other countries?

Dr. Eddy. I don't think so, because the know-how is present in other countries besides the United States. We do have a group of manufacturing countries on the one hand and presently a group of producing countries, if you want to call them that, the opium producers, on the other hand. But my suggestion was that we put our effort into giving the opium producers and producing countries, economic and technical assistance so they can live without opium. We can't expect to do this at their cost solely. We have got to do something about getting them to grow alternative crops. But once you have done that I don't see that they have any allegation that we are taking the bread out of their mouth.

Mr. Mann. Nothing further.

Chairman Pepper. Mr. Wiggins?

Mr. Wiggins. Doctor, do you generally concur in the observations made by Dr. Seevers that if the Congress were inclined to prohibit the importation of morphine that such a statute should have immediate effect?

Dr. Eddy. Well, I don't know—I am not sure that I know what you mean by immediate. As of now, no. You couldn't do it quite that quickly.

There is reluctance on the part of the physicians to use the synthetics, justifiably so. They have been fooled more than once. Heroin was introduced as a nonaddicting substance 75 years ago. It was promptly proved to be—that was promptly proved to be—erroneous. Demerol was introduced 30 years ago as a nonaddicting substance, even though at the time that it went on the market we had evidence that it was as dependence-producing as morphine itself. The producer disagreed and claimed for a number of years, 6 or 8 years, that we were wrong, that it did not produce morphine-like dependence. Later, they did admit that we were right, that it did produce physical dependence, and they have changed their advertising. It is now under narcotic control—they advertise it now as a morphine-like substance.

Mr. Wiggins. Doctor, we both understand that if Congress were to await a medical concensus that we would not act at all, just because the doctors are, as has previously been testified to, an independent lot. Nothwithstanding that, if Congress should make a determination that it is in the public interest to prohibit the importation of morphine do you know of any reason why that statute should not be made operative as of its effective date, or would it be in the public interest to delay it a month, 6 months, a year, 2 years, something on that order?

Dr. Eddy. Well, physicians, usually physicians are not all that familiar with new products. I think there should be some reasonable delay in order to familiarize them with the substitutes. As I said earlier, we banned heroin from the medical practice without too much resistance, partly because we kept morphine, which in many instances was advantageous over heroin and heroin was not all that popular in the United States. When the attempt was made to ban heroin in Great Britain there was a tremendous furor and the Home Office eventually withdrew the ban and heroin is still permissible in Great Britain.

If we were to attempt to ban, by congressional action, the use of morphine in clinical medicine I think there would very justifiably be a good deal of resistance on the part of physicians. The natural opiates are what they are accustomed to and you would have to give them an opportunity to become accustomed to things to be used alternatively.

Mr. Wiggins. I have difficulty in reconciling your statement that medical resistance would be justified in view of your earlier statement, there are adequate substitutes for morphine now existing.

Dr. Eddy. Well, those substitutes are there, but not all of the physicians in the country are aware of them and familiar with their use. They would say: "Well, what am I going to do for John Jones for whom I must have morphine in order to get him through this operation or to handle his broken leg or something else. I don't know anything about this compound. I have never heard of it." You have got to give him an opportunity to familiarize himself, carry on some sort of campaign to get them to accept the alternative.

I was very active, took a very great interest in the introduction of pentazocine. It was quite slow in coming on the market for reasons I don't need to go into. I was particularly interested because it appeared to be completely free of physical dependence factors, and it is reasonably so. We did not expect any abuse of it at all. There has been a very small amount of abuse because a few people who have abused other drugs have found the reactions of it pleasant to them and have gone on to use excessive amounts, but the number is very small. It does have antagonistic properties if given to a person already dependent on morphine. It was likely the withdrawal phenomena would be precipitated and would probably make him sick and probably very angry with his doctor if the doctor was not aware of what was going on. But the reaction to it has been exceedingly good. It is an agonist-antagonist and physicians are accepting it, and I think we can get them to accept it and other compounds of this sort to a sufficient extent so that medical practice would not suffer for lack of the opiates. But this takes a little time.

Mr. Wiggins. I would like to ask two additional questions, Doctor. How would you describe the ease of manufacturing the existing substitutes for morphine? That question is really aimed at whether or not we can expect a lot of backyard or backroom clandestine laboratories turning out the substitutes if the United States were to prohibit the use of morphine.

Dr. Eddy. Well, none of the synthetics are all that easy to produce. It would require a very skilled, very well-equipped technical chemical laboratory to produce them. It isn't anything like the ease with which heroin is obtained from morphine. You can cook up heroin in your kitchen from morphine if you have a morphine supply. You can extract morphine from opium without very much difficulty.

Mr. WIGGINS. Is it as easy as manufacturing LSD or more difficult?

Dr. EDDY. Well, given a supply of lysergic acid for the production of LSD, the development of the synthetics in place of the natural opiates would be much more difficult.

Mr. WIGGINS. What would be the price for synthetics versus price of morphine?

Dr. EDDY. Presently the price to the patient is practically the same per dose for all the compounds we have been considering. We have already looked into that.

Mr. WIGGINS. Thank you, Doctor.

Chairman PEPPER. Mr. Steiger?

Mr. STEIGER. I have no questions.

Chairman PEPPER. Mr. Winn?

Mr. WINN. Thank you, Mr. Chairman.

Doctor, you have a statement here which says you believe drug detoxification has no effect on a person's craving for drugs. You spoke to that a minute ago, and this same statement says that is what you referred to as the lesson of Lexington. Could you speak to that a little bit more?

Dr. EDDY. Well, perhaps I can answer your question this way: So far as we know, putting a patient through cold turkey, which means withdrawing from opiate without any treatment at all, does not deter him from relapse, relapse to the use of opiate once he is free of the treatment as against treating him as humanely as possible. So there is no point—there is no justification—for cold turkey treatment of a drug-dependent person.

Mr. WINN. What you are saying, which you referred to a little while ago, is that there would be no difference in the psychic craving?

Dr. EDDY. That is right.

Mr. WINN. And not a physiological craving?

Dr. EDDY. We can handle the physical dependence side of it without difficulty, because we know how to take the person through withdrawal so he does not suffer, to all intents and purposes, take him through withdrawal with reasonable comfort.

But that doesn't necessarily affect his remembrance of the effects that he got from the heroin he took or the opiate that he took previously or his desire to reexperience those effects. That is psychic dependence.

Mr. WINN. Are you doing anything, or is anything being done, to offset this psychic dependency.

Dr. EDDY. Yes; of course. Any treatment program should include psychotherapy to try to help the man to understand and meet his problems without resort to drugs to convince him that the subjective effects which he obtained were not essential to him, that life without drugs is possible and reasonable and more productive, more rewarding.

Mr. WINN. Thank you very much, sir.

Thank you, Mr. Chairman.

Chairman PEPPER. Doctor, I understand that in Britain, one way of handling heroin addiction is to authorize the prescription of heroin to addicts. Would you recommend that course in this country?

Dr. Eddy. No.

Chairman Pepper. Now, would you care to comment about the use of methadone as a drug in the treatment of heroin addiction?

Dr. Eddy. In the use of methadone you use, or you accustom, the individual, you stabilize the individual on a dosage level which, through the mechanism of cross-tolerance, prevents him from getting any acute reaction to the methadone which he is taking or a dose of heroin which he might take. Therefore, you stabilize him in a state where he is in a stable mood so far as drug use is concerned and is of a mind to turn his attention to other things rather than simply to his previously drug-seeking behavior. Therefore, he no longer needs to go out in the street and steal cars and televisions and so on to buy his heroin. He has an opportunity to concern himself with getting a job and supporting his family.

Mr. Pepper. How do you think methadone should be furnished to the addict?

Dr. Eddy. Through a team effort to help handle all of his problems, not just simply to supply him with drugs, because you must have the psychotherapy, the vocational assistance, the job help and housing help, perhaps, and all this while he is stabilized on methadone. Otherwise he has other reasons for trying to go back to other drugs, even though he is not getting any satisfaction out of his heroin.

Chairman Pepper. In other words, a prescription of methadone by a physician is not the answer to the problem alone?

Dr. Eddy. Very definitely not. Theoretically, in a very rare instance, it would be possible for a private physician with very close rapport with his patient to put that patient on methadone and keep close contact with him and treat him satisfactorily. But practically, writing prescriptions for drug-dependent people for methadone, letting them go to the drugstore and buy it without doing anything else for him, is not the answer at all. You just give him the opportunity to use excessive amounts of methadone or to sell some of it to somebody else, go to another doctor and get some more. You have no control over the proposition at all. You have not accomplished what you have set out to do.

Chairman Pepper. Doctor, one other question.

What is your opinion as to the medical need for amphetamines?

Dr. Eddy. The legitimate need is very small indeed.

Mr. Wiggins. Doctor, what is the difference between methadone maintenance or stabilization and heroin maintenance or stabilization, assuming the heroin was made available at no cost or minimum cost to the patient?

Dr. Eddy. Theoretically, none when you supply the heroin. If you are going to be successful you have got to supply him with enough heroin to maintain him in a reasonably stable state. Practically, there are differences because at the present time they are still supplying heroin in England to be taken by injection, which maintains the ritual of heroin abuse which the individual has been subject to previously. In the methadone maintenance program the drug is given by mouth and therefore you upset the ritual, which goes along with his dependence, and probably is a very significant factor in the maintenance of dependence.

But more than that, you can build up to a dose of methadone which will maintain the individual in the stable state throughout the 24-

hour period. It is exceedingly difficult to do that with heroin because heroin is so short acting and particularly ineffective by mouth. Methadone is nearly as effective by mouth as it is by injection. Heroin is much less effective by mouth. That is why they stick to the injection route, and it would be exceedingly difficult to stabilize a person on heroin given by mouth, almost impossible.

But theoretically in both instances you are simply maintaining the individual's dependence by giving him another opiate.

Chairman PEPPER. Any more questions?

Mr. STEIGER. Just one.

Dr. Eddy, in your work with Dr. Seevers in his primate laboratory did you see any symptoms of the psychic dependence, or is there any method of observing that?

Dr. EDDY. There are programs going on in a number of laboratories directed toward that very thing. As a matter of fact, we are very hopeful that in the not too distant future we will have techniques for measuring drug seeking behavior through offering the drugs to the primates for self-administration. This is a very promising line of research that is going on in Dr. Seevers' laboratories and other laboratories as well. It is a different approach from what he described where we were attempting to assess the dependence liability of compounds sent to him under code designation.

Mr. STEIGER. Is there any investigation in which we are attempting to support psychic independence by chemical means? Has that been explored? Is it not conceivable? Is that a part of what you just described?

Dr. EDDY. I am not sure what you mean.

Mr. STEIGER. In which we can reach the psychic dependence chemically or by——

Dr. EDDY. Well, you do. In methadone maintenance or heroin maintenance you are administering the same type of drug upon which the individual is dependent psychically and physically, so you satisfy his psychic as well as physical craving.

Mr. STEIGER. I understand that. Is there any attempt to find a chemical which will allow the patient to overcome the psychic dependence without the need for all of the social requirements that we now have? Is that not achievable, in your opinion?

Dr. EDDY. Perhaps. Dr. Keats once said when he first began studying the antagonists—Dr. Keats is a very skilled person in clinical medicine and very much involved with some of the new compounds—he once said that perhaps the solution to our problem was to develop a compound which made the individual uncomfortable and yet relieved his pain. If he could be persuaded to take cyclazocine as an analgesic in the ordinary clinical situation he would probably at some times, at least, be pretty uncomfortable. He wouldn't like it very much. But if he got sufficient relief of pain he might be able to tolerate the unpleasantness until tolerance to it developed. The pharmaceutical houses have not been willing to take that gamble.

There is a related compound, one of the synthetic groups, actually as potent as cyclazocine. I discussed with the manufacturer the possibility of pursuing it as a drug for clinical medicine, hopefully that there would be enough difference between the dose level for the disagreeable side effects and for the pain-relieving effect so that we could get away with it as Dr. Keats suggested. The company did make a brief trial but the results were even worse than with cyclazocine and they would have nothing further to do with it.

But something along those lines may be possible. Pentazocine in some circumstances, and in some individuals, has had disagreeable side effects though to a lesser degree then cyclazocine, but it is being accepted by physicians and patients at the present time. So in a sense we have accomplished what we are striving for.

Mr. STEIGER. Thank you, sir.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. No questions.

Chairman PEPPER. Mr. Perito, do you have anything to put in the record or any other questions?

Mr. PERITO. Yes, Mr. Chairman, I would like to offer for the record the prepared statement and curriculum vitae of Dr. Eddy.

Chairman PEPPER. Without objection they will be received.

Dr. Eddy, we wish to than you very much for coming here and giving us from your vast knowledge and experience the encouraging testimony you have given us this morning.

Thank you very much.

Dr. EDDY. It has been a privilege and a pleasure to talk with you.

(The material referred to follows:

[Exhibit No. 4(a)]

PREPARED STATEMENT OF DR. NATHAN B. EDDY, CHAIRMAN, COMMITTEE ON PROBLEMS OF DRUG DEPENDENCE, DIVISION OF MEDICAL SCIENCES, NATIONAL ACADEMY OF SCIENCES–NATIONAL RESEARCH COUNCIL

The Select Committee on Crime has seen the resolutions of the Committee on Drug Addiction and Narcotics, Division of Medical Sciences, National Research Council, the earliest of which has been quoted by Dr. Seevers today. These resolutions maintain that medical practice, and the patient, would suffer no loss if the natural alkaloids of opium, and substances derived from them, were not available. All medical indications for morphine and/or codeine, as well as for substances semisynthetically derived from them, can be met by substances of wholly synthetic origin. Adequate substitution is possible. Is it practical or advantageous? Many considerations must enter into the answer to this question. Dr. Seevers and Dr. Brill have, or will, discuss some of them. Obviously the advantages and disadvantages of potential substitutes are important, so I offer for the record brief summaries of some replacements already on the market. The presentation is in approximate chronological order.

Pethidine (meperidine, Demerol®) was the first wholly synthetic morphine-like analgesic, the characteristics of which were discovered only incidentally. Close scrutiny, however, revealed that its structure corresponded to an internal part of the morphine molecule, hence, presumably, its morphine-like properties. As with heroin 40 years earlier, pethidine was introduced as not dependence-producing, a claim which undoubtedly was of great importance in building the drug's popularity and is in vogue among many physicians even today. Fortunately we have not again been so far off the mark. The optimal analgesic dose of pethidine, effective against many types of pain, is 100 mg. approximately equivalent to 10 mg. of morphine when each is given intramusculary. Pethidine is available for oral administration, usually in combination with aspirin, but its effectiveness by this route is not as great as the small dose in the commerical preparation seems to indicate. The use of pethidine is accompanied by the same sort of side effects as are associated with the use of morphine with only minor quantitative differences. Sleepiness and constipation may be less frequent, a feeling of well-being more frequent. It produces respiratory depression, relative to its analgesic action, at least as great as that following morphine, and is probably more likely to cause a fall in blood pressure. Pethidine has been used widely in obstetrics and may facilitate dilation of the cervix, but it may also decrease uterine contractions and it does not necessarily shorten labor. Pethidine has a significant effect on the infant, increasing the frequency of delay in first breath and cry. This depression is less than when the barbiturates are used and probably less than with administration of morphine, but it is definite and should not be regarded lightly. From the very first tests for determination of the possibility, pethidine has been shown to be dependence-producing and many cases of dependence on it, of morphine type, have been reported, especially among medical and ancillary personnel. The euphorigenic and dependence-producing dose of pethidine is close to its optimal analgesic dose, so that its dependence liability relative to its analgesic action is much like that of morphine.

Methadone (Dolophine®), though apparently dissimilar to morphine in structure, can produce qualitatively essentially all of morphine's actions and in many respects is quantitatively equivalent. It is more effective than morphine when taken by mouth and its euphorigenic action persists longer whether the oral or parenteral route is employed. Tolerance, cross-tolerance, and dependence develop as with morphine and the side effects of methadone and morphine are similar. The withdrawal syndrome after chronic administration of methadone develops more slowly, is less intense, and is longer in duration than the morphine abstinence syndrome. Methadone is a good enough suppressant. There should be no difficulty in using methadone wherever morphine is indicated but its abuse liability is as great as with morphine.

Normethadone is closely similar to methadone in structure and action, but has been used only in a mixture as a cough suppressant. The addition of the other active constituent in the marketed mixture, Ticarda; namely Suprifen, does not reduce abuse liability and may indeed increase it because of its amphetamine-like stimulant subjective effects. Cases of dependence in clinical practice have been described. While at least as effective as codeine, according to the usual therapeutic doses, for cough relief, the abuse liability or normethadone is greater.

Levorphanol (Dromoran®) is a result of attempts to synthesize morphine in the laboratory and has the structure minus three chemical features. It is morphine-like in its action in all respects and dosewise is several times more powerful. It is particularly effective when taken by mouth. Again it could be used for all morphine indications, but there would be no reduction in dependence liability.

Dextromethorphan (Romilan®) is structurally related to codeine as levorphanol is related to morphine, but it is qualitatively different in some respects. It does not have pain-relieving potency, but is as effective as codeine for the relief of cough. It will not support an established dependence of morphine-type but the subjective effects of large doses, mainly psychotomimetic rather than morphine-like, are appreciated by some subjects and a few cases of abuse have been encountered. Preparations of dextromethorphan are available over the counter.

Phenazocine (Prinadol®, Narphen®) is a result of further simplification of the morphine molecule, or of less-advanced synthesis toward the morphine molecule. It is a basic structure present in morphine and levorphanol and represents further deletion of certain chemical features. It is qualitatively similar to morphine in its action but shows some quantitative differences. Analgesic potency is present in phenazocine about on a par with that of levorphanol, that is, several times greater than with morphine. Side effects are similar with all three drugs. Dependence capacity is reduced definitely, as measured by animal experiments, but little as judged by quantitative comparisons in man. Phenazocine is effective orally, often nearly as effective as after parenteral injection, and therein may lie its greatest usefulness. Oral phenazocine has been well received in England and other countries; it has not been marketed for oral use in the United States.

Propoxyphene (Darvon®) is structurally related to methadone and has enjoyed wide popularity as a mild oral analgesic, especially in combination with APC (aspirin, phenacetin, and caffeine). An intensive review of many studies, comparing the drug with codeine, or with aspirin, or APC, concluded that even the mixture with APC hardly equaled the oral effectiveness of codeine and certainly did not surpass it. Propoxyphine can produce morphine-like subjective effects, supports an established morphine dependence poorly, but has measurable dependence-producing capacity. Cases of abuse have been reported. However, after 5 years of marketing experience, the abuse liability of propoxyphene as a public health hazard was judged not to warrant narcotics control, nationally or internationally.

Caramiphen (Parpanit®) is not related chemically to any of the compounds which have been described. It was introduced as a relaxant and later shown to have cough-suppressant action, but there have been few controlled studies comparing it with codeine. Few side effects have been reported and no case of dependence or abuse.

Benzonatate (Tessalon®) is also unrelated to the morphine structure, but is claimed to have a suppressant effect on cough reflexes both at the site of irritation peripherally and at the responding center in the nervous system. Again there have been few carefully controlled studies. The recommended therapeutic dose is at least three times larger than for codeine and tolerance to the cough-relieving action may occur.

Pentazocine (Talwin®) is a member of the benzomorphan series of which phenazocine was the first marketed example, and illustrates our most promising leads for opiate substitution. These constitute two underlying basic principles: (1) Animal experiments have shown consistently greater dissociation of pain relief and dependence capacity among the benzomorphans, which represent only partial synthesis toward morphine, than in any other chemical group. This trend has been partially confirmed in studies in man; (2) Whether the basic structure is morphine, morphinan, or benzomorphan, certain modifications have led to the appearance of specific antagonistic properties simultaneously with the retention of some morphine-like action. Compounds displaying such a combination of effects are classified as agonist-antagonists and pentazocine is in this group. It relieves pain satisfactorily, given orally or parenterally at a dose about four times greater than for morphine. Side effects with therapeutic doses are morphine-like. Pentazocine is also a weak morphine antagonist and will not support an established morphine dependence. Chronic administration of pentazocine causes the appearance of some dependence and a mild abstinence syndrome when the drug is abruptly withdrawn. Both the dependence and the abstinence syndrome are partly like, partly unlike, these phenomena with morphine. There is less drug-seeking behavior. The clinical effectiveness of pentazocine is being well received by physicians and patients. A few cases of abuse have been reported, very few in relation to the total doses prescribed. The drug has not been subjected to narcotics control.

The foregoing descriptions confirm, I think, that we can do without morphine and codeine but the book on opiate substitution is not closed. Not only is the agonist-antagonist group undergoing and worthy of much further study, but there are other compounds of diverse structure in development, following further dissociation of dependence capacity and therapeutic action.

[Exhibit No. 4(b)]

CURRICULUM VITAE OF DR. NATHAN BROWNE EDDY, CHAIRMAN, COMMITTEE OF PROBLEMS OF DRUG DEPENDENCE, DIVISION OF MEDICAL SCIENCES, NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL

Date and place of birth: Glens Falls, N.Y. August 4, 1890.

Family: Wilhelmina Marie Aherns (wife); Charles Ernest Eddy (son), deceased.

Education and degrees: 1911—Cornell University Medical School—M.D.: 1963—University of Michigan—D. Sc. (honorary).

Special training or experience:

1911–16—Practice of medicine, New York City.

1916–20—Instructor of physiology, McGill University; teaching and research.

1926–28—Assistant professor, physiology and pharmacology, University of Alberta—teaching and research.

1928–30—Associate professor of pharmacology, University of Alberta, teaching and Research.

1927 (May–September) Visiting investigator, Department of Pharmacology, Cornell University Medical School.

1928 (May–September) Visiting investigator and lecturer, Department of Physiology, University of Michigan Medical School.

1929 (May–September.) Visiting investigator and lecturer, Department of Physiology, University of Michigan Medical School.

1930–39—Research professor in pharmacology, University of Michigan—research.
1930–39—Consultant Biologist in Alkaloids, U.S. Public Health Service.
1939–49—Principal Pharmacologist, National Institutes of Health.
1949–60—Medical Officer, General, National Institutes of Health.
1951–60—Chief, Section on Analgesics, Laboratory of Chemistry. National Institute of Arthritis and Metabolic Diseases, National Institutes of Health—retired August 31, 1960.
1960—Consultant on Narcotics, National Institutes of Health.
1961–67—Professional Associate, designated Executive Secretary, Committee on Drug Addiction and narcotics, Medical Division, National Research council.
1968– —Consultant, Bureau of Narcotics and Dangerous Drugs.
1969– —Consultant New York State Narcotic Addiction Control Commission.
1970– —Consultant Le Dain Commission on Nonmedical Use of Drugs.

Membership in professional organizations:
- Society of Pharmacology and Experimental Therapeutics.
- American Association for the Advancement of Science.
- Society for Experimental Biologyand Medicine.
- Sigma Xi.
- Editorial board, Excerpta Medica; editorial advisory board "Voice of America".
- Society for the study of addiction to alcohol and other drugs.
- Washington Academy of Sciences.
- American College of Clinical Pharmacology and Chemotherapy.
- Institute for the Study of Addiction.
- College of Neuropsychopharmacology.
- Eastern Psychiatric Research Association.

Committee appointments, etc.:
- Committee on Drug Addiction and Narcotics (Problems of Drug Dependence), National Research Council, Secretary 1947–61; chairman 1970.
- U.S. Public Health Service Drug Addiction Committee (resigned).
- U.S. Public Health Service Post Office Advisory Committee. (resigned).
- Bureau of Narcotics Advisory Committee on Oral Prescription bill, Ad hoc.
- Advisory Committee under Narcotics Manufacturing Act of 1960. Chairman, 1961.
- Expert Panel on Addiction-Producing Drugs, World Health Organization; member of each expert committee chosen from this panel; chairman of Committee on first, second, eighth, ninth, 12th, 13th, and 16th sessions.
- Technical Adviser, U.S. Delegation to United Nations Commission on Narcotic Drugs. 1947, 1948, 1957, and 1958.
- Technical Committee, United Nations Plenipotentiary Conference on Single Convention on Narcotics Control, 1961.
- Special Consultant to Addiction-Producing Drugs Section, World Health Organization, 1954, 1955, 1956, 1959, and 1961.
- Consultant to Army Chemical Center.
- American Social Health Association Advisory Committee on Narcotic Addiction.
- Delegate and Panelist, White House Conference on Narcotic and Drug Abuse, September 27–28, 1962.
- Alternate delegate for ASHA National Coordinating Council on Drug Abuse Information and Education.

Honors and Awards:
- Corecipient, First Annual Scientific Award, American Pharmaceutical Manufacturers Association, 1939.
- Guest speaker, Royal Canadian Institute, Toronto Ontario, Canada, March 28, 1953.
- Lister Memorial Lecture, October 1, 1959, Edinburgh, Scotland.
- Public Health Service Superior Performance Award for Sustained Outstanding Service, August 31, 1960.
- Delegate and guest speaker, Los Angeles Conference on Narcotic and Drug Abuse, April 27–28, 1963.
- Guest speaker, Hawaiian Pharmaceutical Association, Honolulu, May 4, 1963.
- D. Sc (honorary) University of Michigan, 1963.
- Dent Lecturer, Society for the Study of Addiction, London, 1967.
- WHO Medal for Distinguished Service, 1969.
- Snow Medal of American Social Health Association, 1969.
- Gold Medal of Eastern Psychiatric Research Association, 1970.

Bibliography

(1) Nathan B. Eddy. "A case of arrested development of pancreas and intestine." Anatomical Record, *6* : 319–323, 1912.

(2) ——— "Recovery in brain syphilis after the use of salavarsan." J. Am. Med. Assn., *60* : 1296, 1913.

(3) Ardrey W. Downs and Nathan B. Eddy. "The influence of secretin on number of erythrocytes in the circulating blood." Am. J. Physiol., *43* : 415–428, 1917.

(4) ——— "Secretin : II. Its influence on the number of white corpuscles in circulating blood." Am. J. Physiol., *45* : 294–301, 1918.

(5) ——— "Secretin : III. Its mode of action in producing an increase in the number of corpuscles in the circulating blood." Am. J. Physiol.. *46* : 209–221, 1918.

(6) ——— "Secretin : IV. The number of red and white corpuscles in the circulating blood during digestion." Am. J. Physiol., *47* : 399–403, 1918.

(7) ——— "Secretin and the change in the corpuscle content of the blood during digestion." J. Fla. Med. Assn., *5* : 101–106, 1916.

(8) Nathan B. Eddy. The role of the thymus gland in exophthalmic goitre." Canadian Med. Assn. J., *9* : 203–213, 1919.

(9) Audrey W. Downs and Nathan B. Eddy. "The influence of internal secretions on the formation of bile." Am. J. Physiol., *48* : 192–198, 1919.

(10) ——— "The influence of spenic extract on the number of corpuscles in the circulating blood." Am. J. Physiol., *51* : 279–288, 1920.

(11) ——— "Effect of subcutaneous injections of thymus substance in young rabbits." Endocrin., *4* : 420–428, 1920.

(12) ——— "Extensibility of muscle : The effect of stretching upon the development of fatigue in a muscle." Am. J. Physiol., *56* : 182–187, 1921.

(13) ——— "Extensibility of muscle : The production of carbon dioxide by a muscle when it is made to support a weight." Am. J. Physiol., *56* : 188–195, 1921.

(14) Nathan B. Eddy. "The internal secretion of the spleen." Endocrinology, *5* : 461–475, 1921.

(15) ——— "A simple device for the demonstration of heart block in the student laboratory." J. Lab. and Clin. Med., *6* : 635–638, 1921.

(16) Ardrey W. Downs and Nathan B. Eddy. "Secretin. V. Its effect in anaemia with a note on the supposed similarity between secretin and vitamin B." Am. J. Physiol., *58* : 296–300, 1921.

(17) ——— "Further observations on the effect of the subcutaneous injection of spenic extract." Am. J. Physiol., *62* : 242–247, 1922.

(18) ——— "Some unusual appearances of nucleated erythrocytes in the circulation following repeated injection of splenic extract." Am. J. Physiol., *63* : 479–483, 1923.

(19) ——— "Secretin and a suggestion as to its therapeutic value." Endocrinology, *7* : 713–719, 1923.

(20) Nathan B. Eddy. "The action of preparations of the endocrine glands upon the work done by skeletal muscle." Am. J. Physiol., *69* : 430–440, 1924.

(21) Ardrey W. Downs and Nathan B. Eddy. "Secretin : VI. Its influence on the antibodies of the blood." Agglutinin. Am. J. Physiol., *71* : 40–43, 1924.

(22) Ardrey W. Downs, Nathan B. Eddy, and Robert M. Shaw. "Secretin : VII. Its inflence on the antibodies of the blood." Complement. Am. J. Physiol., *71* : 44–45, 1924.

(23)——— "Secretin : VIII. Its influence on antibodies of the blood : Haemolytic amboceptor." Am. J. Physiol., *71* : 46–48, 1924.

(24) Nathan B. Eddy and Ardrey W. Downs. "Blood regeneration." Canadian Med. Assn. J., *16* : 391–396, 1926.

(25) ——— "Secretin : IX. Its relation to the activity of skeletal muscle." Am. J. Physiol., *74* : 489–496, 1925.

(26) Nathan B. Eddy. Studies on hypnotics of the barbituric acid series." J. Pharmacol. and Exper. Therap., *33* : 43–68, 1928.

(27) Nathan B. Eddy and Ardrey W. Downs. "Tolerance and cross-tolerance in the human subject to the diuretic effect of carreine, theobromine, and theophylline." J. Pharmacol. & Exper. Therap., *33* : 167–174, 1928.

(28) Nathan B. Eddy and Robert A. Hatcher. "The seat of the emetic action of the digitalis bodies." J. Pharmacol. and Exper. therap., *33* : 295–300, 1928.

(29) Ardrey W. Downs and Nathan B. Eddy. "Morphine tolerance : I. The acquirement, existence and loss of tolerance in dogs." J. Lab. and Clin. Med., *13* : 739–745. 1928.

(30) ——— "Morphine tolerance : II. The susceptability of morphine tolerant dogs to codeine, heroin and scopolamine." J. Lab and Clin. Med., *13* : 745–749, 1928.

(31) Ardrey W. Downs, Nathan B. Eddy, and John P. Quigley. "Morphine tolerance : III. The effect of cocaine upon dogs before, during and after habituation to morphine." J. Lab. and Clin. Med., *13* : 839–842, 1928.

(32) Nathan B. Eddy. "The regulation of respiration : XXVII. The effect upon salivary secretion of varying the carbon dioxide and oxygen content of of the inspired air." Am. J. Physiol., *88:* 534–545, 1929.

(33) ——— "The effect of the repeated administration or diethyl barbituric acid and of cyclohexenylethyl barbituric acid." J. Pharmacol. & Exper. Therap., *37:* 261–271, 1929.

(34) ——— "The excretion of diethyl barbituric acid during its continued administration." J. Pharmacol. & Exper. Therap. *37:* 273–282, 1929.

(35) Ardrey W. Downs and Nathan B. Eddy. "The influence of Tyramine on the number of red corpuscles in the circulating blood." Proc. Soc. Exper. Biol. & Med., *27:* 405–407, 1930.

(36) Nathan B. Eddy. "Antagonism between methylene blue and sodium cyanide." J. Pharmacol. & Exper. Therap., *39:* 271, 1930. (Proc.)

(37) ——— "Regulation of respiration. The effect upon salivary secretion of the intravenous administration of sodium bicarbonate, sodium carbonate, sodium hydroxide, sodium chloride, and sodium sulphate." Quart. J. Exper. Physiol., *20:* 313–320, 1930 (8 plates).

(38) ——— "Regulation of respiration. The effect upon salivary secretion of the intravenous administration of lactic acid, sodium lactate, and hydrochloric acid." Quart. J. Exper. Physiol., *20:* 321–326, 1930 (5 plates).

(39) ——— "Regulation of respiration. The effect upon salivary secretion of the intravenous administration of ammonium chloride and ammonium carbonate." Quart. J. Exper. Physiol., *20:* 327–332, 1930 (5 plates).

(40) ——— "Regulation of respiration. The effect upon salivary secretion of an increased oxygen content of the inspired air and of forced ventilation." J. Pharmacol. & Exper. Therap., *41:* 423–433, 1931.

(41) ——— "Regulation of respiration. The effect upon salivary secretion of the intravenous administration of sodium sulphide, sodium cyanide and methylene blue." J. Pharmacol. & Exper. Therap., *41:* 435–447, 1931.

(42) ——— "Regulation of respiration. The antagonism between methylene blue an dsodium cyanide." J. Pharmacol. & Exper. Therap., *41:* 449–464, 1931.

(43) ——— "The action of the codine isomers and some of their derivatives." J. Pharmacol. & Exper. Therap., *45:* 236, 1932. (Proc.)

(44) ——— "A comparison of phenanthrene and some 2-, 3-, and 9-monosubstitution products." J. Pharmacol. & Exper. Therap., *45:* 257, 1932. (Proc.)

(45) Nathan B. Eddy and A. Kenneth Simon. "The measurement of the depressant action of the codeine isomers and related substances by the use of mazetrained rats." J. Pharmacol. & Exper. Therap., *45:* —, 1932. (Proc.)

(46) Hugo M. Kreugar and Nathan B. Eddy. "A study of the effects of codeine and isomers on the movements of the small intestine." J. Pharmacol. & Exper. Therap., *45:* 266, 1932. (Proc.)

(47) Nathan B. Eddy. "Studies of morphine, codeine, and their derivatives : I. General Methods." J. Pharmacol. & Exper. Therap., *45:* 339–359, 1932.

(48) ——— "Studies of morphine, codeine, and their derivatives : II. Isomers of codine." J. Pharmacol. & Exper. Therap., *45:* 361–381, 1932.

(49) Ardrey W. Downs and Nathan B. Eddy. "Influence of barbital upon cocaine poisoning in the rat." J. Pharmacol. & Exper. Therap., *45:* 383–387, 1932.

(50) ——— "Effect of repeated doses of cocaine on the dog." J. Pharmacol. & Exper. Therap., *46:* 195–198, 1932.

(51) ——— "Effect of repeated doses of cocaine on the rat." J, Pharmacol. & Exper. Therap., *46:* 299–200, 1932.

(52) Nathan B. Eddy. "Dilaudid." J. Am. Med. Assn., *100:* 1031–1035, 1933.

(53) Gerald G. Woods and Nathan B. Eddy. "Some new alkamines of the tetrahydronapthalene series." J. Pharmacol. & Exper. Therap., *48:* 175–181, 1933.

(54) Nathan B. Eddy. "Studies of phenanthrene derivatives: I. A comparison of phenanthrene and some 2-, 3-, and 9-monosubstitution products." J. Pharmacol. & Exper. Therap., *48:* 183–198, 1933.

(55) ——— "Studies of the relation of the hydroxyl groups of morphine to its pharmacological action." J. Pharmacol. & Exper. Therap., *48*: 271, 1933. (Proc.)

(56) ——— "Studies of morphine, codeine, and their derivatives: III. Morphine methochloride and codeine methocloride." J. Pharmacol. & Exper. Therap,. *49:* 319–327, 1933.

(57) ——— "Studies of morphine, codeine, and their derivatives: IV. Hydrogenated codine isomers." J. Pharmacol. & Exper. Therap., *51:* 35–44, 1934.

(58) ——— "Studies of phenanthrene derivatives: II. Monosubstitution products, first variations. The effect of muzzling the hydroxyl group of 2- or 3-hydroxyphenanthrene." J. Pharmacol. & Exper. Therap., *51:* 75–84, 1934.

(59) Charles W. Edmunds and Nathan B. Eddy. "Some studies on the drug addiction problem." Michigan Alumnus Quarterly Review, *41:* 250–257, 1934.

(60) Charles W. Edmunds, Nathan B. Eddy, and Lyndon F. Small. "Studies on morphine addition problem." J. Am. Med. Assn., *103:* 1417, 1934.

(61) Nathan B. Eddy. "Studies of phenanthrene derivatives: III. Di-subst. products." J. Pharmacol. & Exper. Therap., *52*: 275–289, 1934.

(62) Nathan B. Eddy and John G. Reid. "Studies of morphine, codeine, and their derivatives: VII, Dihydromorphine (paramorphan), dihydromorphinene, (Dilaudid), and dihydrocodeinone (Dicodide)." J. Pharmacol. & Exper. *52*: 468–493, 1934.

(63) Nathan B. Eddy and Homer A. Howes. "Studies of morphine, codeine, and their derivatives: VIII. Monoacetyl- and diacetylmorphine and their hydr. derivatives." J. Pharmacol. & Exper. Therap., *53*: 430–439, 1935.

(64) Nathan B. Eddy. "Phenanthrene studies. The effect of different nitric-taining side-chains." J. Pharmacol. & Exper. Therap., *54*: 149, 1935.

(65) A. Kenneth Simon and Nathan B. Eddy. "Studies of morphine, codeine, and their derivatives: V. The use of maze-trained rats to study the effect on central nervous system of morphine and related substances." Am. J. *47*: 597–613, 1935.

(66) Nathan B. Eddy and Bertha Ahrens. "Studies of morphine, codeine, and their derivatives: VI. The measurement of the central effect of codeine, hydrocodeine, and their isomers by the use of maze-trained rats." Psychol., *47*: 614–623, 1935.

(67) Nathan B. Eddy. "Studies of morphine, codeine, and their derivatives: Methyl ethers of the morphine and codeine series." J. Pharmacol. & Therap., *55*: 127–135, 1935.

(68) Nathan B. Eddy and Homer A. Howes. "Studies of morphine, codeine, and their derivatives: X. Desoxymorphine-C, desoxycodeine-C and their hydro derivatives." J. Pharmacol. & Exper. Therap., *55*: 257–267, 1935.

(69) Nathan B. Eddy. "Studies of phenanthrene derivatives: V. Homologous and aldehydes and some of their derivatives." J. Pharmacol. & Exper. Therap., *55*: 354–364, 1935.

(70) ——— "Studies of phenanthrene derivatives: VI. Amino alec of the ethanolamine and propanolamine type." J. Pharmacol. & Exper. *55*: 419–429, 1935.

(71) ——— "Studies of morphine, codeine, and their derivatives: The isomers of morphine and dihydromorphine." J. Pharmacol. & Exper. *56*: 429–431. 1936.

(72) ——— "Studies of phenanthrene derivatives: VII. A comparing analogous phenanthrene and dibenzofuran derivatives." J. Pharmacol. Exper. Therap., *58*: 159–170, 1936.

(73) ——— "Drug Addiction. Pharmacological Studies." Hosp. New 34, 1936.

(74) Nathan B. Eddy and C. K. Himmelsbach. "Experiments on the tolerance and addiction potentialities of dihydrodesoxymorphine-D ("Desomorphine")." Suppl. No. 118 to the U.S. Public Health Reports, 33 pp., 1936.

(75) Nathan B. Eddy. "Analgesic and other effects of some carbazoles." J. Pharmacol. & Exper. Therap., *60*: 105, 1937 (Proc.)

(76) ——— "The search for more effective morphine-like substitutes." Am. J. Med. Sc., *197*: 464–479, 1939.

(77) Lyndon F. Small, Nathan B. Eddy, Erich Mosettig, and C. K. Himmelsbach. "Studies on drug addiction. With special reference to chemical structure of opium derivatives and allied synthetic substances and their physiological action." Suppl. No. 138 to U.S. Public Health Reports, 143 pp., 1939.

(78) Nathan B. Eddy. "Studies of carbazole derivatives: I. Amino-carbazoles." J. Pharmacol. & Exper. Therap., *65*: 294–307, 1939.

(79) ——— "Studies of carbazole derivatives: II. Amino alcohols and derivatives of tetrahydrocarbazole." J. Pharmacol. & Exper. Therap., *65*: 308–317, 1939.

(80) ——— "Studies of morphine, codeine, and their derivatives: XIV. The variation with age in the toxic effects of morphine, codeine, and some of their derivatives." J. Pharmacol. & Exper. Therap., *66*: 182–201, 1939.

(81) Nathan B. Eddy and Margaret Sumwalt. "Studies of morphine, codiene, and their derivatives: XV 2,4-Dinitrophenylmorphine." J. Pharmacol. & Exper. Therap., *67*: 127–141, 1939.

(82) Nathan B. Eddy. "Pharmaceutical education and the public health." Am. J. Pharmaceut. Ed., 181–186, 1942.

(83) Hugo Krueger, Nathan B. Eddy, and Margaret Sumwalt. "The Pharmacology of the Opium Alkaloids." Suppl. No. 165 to the Public Health Reports, 1448 CXL pp., 1943.

(84) Nathan B. Eddy. "4,4-Diphenyl-6-dimethylamino-heptanone-3: A new synthetic morphine-like analgesic." Soc. for Exper. Biol. & Med., Washington Section, April 1947.

(85) ——— "Metopon hydrochloride." J. Am. Med. Assn., *134*: 219–292, 1947.

(86) Harris Isbell, Abraham Wikler, Nathan B. Eddy, John L. Wilson, and Clifford F. Moran. "Tolerance and addiction liability of 4,4-diphenyl-6-dimethylamino-heptanone-3 (Methadone)." J. Am. Med. Assn., *135*: 883–894, 1947.

(87) Nathan B. Eddy. "Metopon." J. Am. Pharmaceut. Assn., Pract. Pharmac. Education, *8*: 430–433, 1947.

(88) ——— "A new morphine-like analgesic." J. Am. Pharm. Assn., Pract. Pharm. Ed., *8*: 536–540, 1947.

(89) ——— "Analgesic drugs in cancer therapy." Fourth International Cancer Research Congress, St. Louis, Sept. 5, 1947. Acta L'Union Internat. Cong. Cancer, *6*: 1379–1385, 1950.

(90) ——— "Metopon." Am. Soc. Anesthesiologists—Symposium on New Drugs, New York, Dec. 5, 1947.

(91) ——— "Progress in Drug Therapy of Pain." Am. Pharmaceut. Manuf. Assn., Annual Award Meeting, New York, Dec. 16, 1947. Am. Prof. Pharmacist, *14*: 252–253, 1948.

(92) ——— "Metopon hydrochloride." Canad. Med. Assn. J. January 1947.

(93) ——— "Metopon hydrochloride (Methyldihydromorphinone hydrochloride)." Report to the Council on Pharmacy and Chemistry of the AMA by the Committee on Drug Addiction and Narcotics of the National Research Council. J. Am. Med. Assn., *137*: 365–367, 1948.

(94) ——— "Newer analgesics in the control of pain in cancer patients." Postgraduate symposium on Cancer, Medical College of Virginia, Richmond, Va. Mar. 25, 1948. Unpublished.

(95) ——— "Newer preparations for pain relief." Read Apr. 16, 1948. George Washington University Medical School. Postgraduate course. Unpublished.

(96) ——— "Progress in drug therapy of pain." Adapted from No. 91. Read at Staff Meeting of Arlington Hospital, Arlington, Va. May 6, 1948. Unpublished.

(97) ——— "Pharmacology of Metopon and other new analgesic opium derivatives." New York Academy of Science. May 14–15, 1948. Ann. N.Y. Acad. Science, *51*: 51–58, 1949.

(98) ——— "The New Narcotics, Post-graduate Course in Internal Medicine of the American College of Physicians, May 22, 1948." Am. Practitioner, *3*: 37–42, 1948.

(99) ——— "Cooperation on Narcotics." Drug & Allied Indust., 5: 8–11, 1949.

(100) ———. "Metopon hydrochloride. An Experiment in Clinical evaluation." U.S. Public Health Reports, *64*: 93–103, 1949.

(101) ——— "Progress in drug therapy of pain." Am. Professional Pharmacists, *14*: 252, 1948.

(102) ——— "The relation of chemical structure to analgesic action." J. Am. Pharmaceut. Assn., Sc. Ed., *39*: 245–251, 1950.

(103) NATHAN B. EDDY, CAROLINE FUHRMEISTER TOUCHBERRY, AND JACOB E. LIEBERMAN. "Synthetic analgesics. I. Methadone isomers and derivatives." J. Pharmacol. & Exper. Therap., *98*: 121–137, 1950.

(104) NATHAN B. EDDY. "Methadols and acetylmethadols." Read Lilly Research Laboratories, May 24, 1951; Pharmacological Institute, Basle, Switzerland, Nov. 15, 1951. Unpublished.

(105) NATHAN B. EDDY, EVERETTE L. MAY, AND ERICH MOSETTIG. "Chemistry and pharmacology of the methadols and acetylmethadols: XII." International Cong. Chem., New York, Sept. 7, 1951; J. Org. Chem., *17*: 321–326, 1952.

(106) NATHAN B. EDDY. "N-Allylnormorphine." Comm. Drug Addiction & Narcotics, Jan. 21, 1952. Unpublished.

(107) ——— "Drugs liable to produce addiction (The work of the World Health Organization Expert Committees)." Public Health Reports, *67*: 362, 1952.

(108) NATHAN B. EDDY AND EVERETTE L. MAY. "The isomethadols and their acetyl derivatives." J. Org. Chem., *17*: 210–215, 1952.

(109) NATHAN B. EDDY, G. ROBERT COATNEY, W. CLARK COOPER AND JOSEPH GREENBERG. "Survey of antimalarial agents." Public Health Monograph, No. *9*: 323 pp. U.S. Govt. Print. Off., Washington, D.C. 1953.

(110) NATHAN B. EDDY AND DOROTHY LEIMBACH. "Synthetic Analgesics: II. Dithienylbutenyl- and dithienylbutylamines." J. Pharmacol. & Exper. Therap. *107*: 385–393, 1953.

(111) NATHAN B. EDDY. "Heroin (diacetylmorphine). Laboratory & clinical evaluations of its effectiveness and addiction liability." Bull. Narcotics, *5*: 39–44, 1953.

(112) ——— "Symposium on drug addiction: Foreword." Am. J. Med. *14*: 537, 1953.

(113) ——— "The hot plate method for measuring analgesic effect in mice." National Research Council Bull. Drug Addiction & Narcotics, 603–612, 1953. Unpublished.

(114) ——— "Drug Addiction: Fact and Fancy." Royal Canadian Institute, Toronto, Canada, Mar. 28, 1953. Pro. Royal Canad. Inst., *18*: 44, 1953; Health Ed. J., *17*: 1, 11; 17: *2*, 14–19, 1953.

(115) DOROTHY LEIMBACH AND NATHAN B. EDDY. "Synthetic analgesics: III. Methadols, Isomethadols and their acyl derivatives." J. Pharmacol. & Exper. Therap., *110*: 135–147, 1954.

(116) NATHAN B. EDDY. "The Phenomena of tolerance." Symposium on Drug Resistance, Washington, D.C., Mar. 26, 1954. Published by Academic Press—"Origins of Resistance to Toxic Agents," pp. 223–243, 1955.

(117) ——— "The Committee on Drug Addiction and Narcotics." News Report, National Academy of Sciences; *4*: 93, 1954.

(118) OLAV J. BRAENDEN, NATHAN B. EDDY, AND H. HALBACH. "Synthetic substances with morphine-like effect. Relationship between chemical structure and analgesic action." Bull. World Health Organization, *13:* 937, 1955.

(119) NATHAN B. EDDY. "Addiction liability of alagesics: tests and results." Read, Symposium on alagesics, American Therauептic Society, June 3, 1955, Atlantic City, N.J. J. Am. Geriatrics Society, *4:* 177, 1956.

(120) ——— "The search for new analgesics. Part of Symposium, Pain and its relief." J. Chronic Dis., *4:* 59, 1956.

(121) NATHAN B. EDDY, H. HALBACH, AND OLAV J. BRAENDEN. "Synthetic substances with morphine-like effect. Relationship between analgesic action and addiction liability, with a discussion of the chemical structure of addiction producing substances." Bull. World Health Organization, *14:* 353, 1956.

(122) Nathan B. Eddy. "Synthetic narcotic drugs." Union Signal, *82:* 7, 1955.

(123) Theodore D. Perrine and Nathan B. Eddy. "The preparation and analgesic activity of 4-carbethoxy-4-phenyl-1-(2-phenylethyl)-piperidine and related compounds." J. Org. Chem., *21:* 125, 1956.

(124) Nathan B. Eddy. "Habit-forming drugs." Bull. Drug Addiction & Narcotics, p. 1494, 1956.

(125) ——— "The history of the development of narcotics." Law and Contemporary Problems, *22*: 3, 1957.

(126) ——— "Addiction-producing versus habit-forming." Guest editorial J. Am. Med. Assn., *163:* 1622, 1957.

(127) ——— "New developments in analgesics." Read, Bahamas Medical Conference, Nassau, Apr. 25, 1957. Unpublished.

(128) ——— "Addiction—the present situation." Read, Bahamas Medical Conference, Nassau, Apr. 25, 1957. Unpublished.

(129) Nathan B. Eddy, H. Halbach, and Olav J. Braenden. "Synthetic substances with morphine-like effect. Clinical experience: Potency, side effects and addiction liability." Bull. World Health Orgn., *17:* 569, 1957.

(130) Nathan B. Eddy, James G. Murphy, and Everette L. May. "Structures related to morphine: IX. Extension of the Grewe morphinan synthesis in the benzomorphan series and pharmacology of some benzomorphans." J. Org. Chem., *22:* 1070, 1957.

(131) Nathan B. Eddy, Hedwig Besendorf, and Bela Pellmont. "Synthetic Analgesics: IV. Aralkyl substitution on nitrogen of morphinan. "U.N. Bull. Narc. *10:* (No. 4), 23, 1958.

(131a) Lyndon F. Small, Nathan B. Eddy, J. Harrison Ager, and Everette L. May. "An improved synthesis of N-phenethylnormorphine and analogs." J. Org. Chem., *23:* 1387, 1958.

(132) Nathan B. Eddy and Lyndon E. Lee, Jr. "The analgesic equivolence to morphine and relative side reaction liability of oxymorphone (14-hydroxy-dihydromorphinone)." J. Pharmacol. & Exper. Therap., *125:* No. 2, February 1959.

(133) Nathan B. Eddy, Lyndon E. Lee, Jr., and Carl A. Harris. "The rate of development of physical dependence and tolerance to analgesic drugs in patients with chronic pain: I. Comparison to morphine, oxymorphone and anileridine." Bull. Narc., *11:* Nos. 1, 3, 1959.

(134) Nathan B. Eddy and Harris Isbell. "Addiction liability and narcotics control." Public Health Reports, *74:* 755, September 1959.

(135) Nathan B. Eddy. "Chemical structure and action of morphine-like analgesics and related substances." Sixth Lister Memorial Lecture. Chem. & Indust., *47:* 1462 November 1959.

(136) Nathan B. Eddy, Lyndon E. Lee, Jr., and Carl A. Harris. "Dependence physique et tolerance vis-a-vis de certains analgesiques chez des malades souffrant de douleurs chroniques. Comparison entre la morphine, l'oxymorphone et l'anileridine." Bull. Org. Sante, *20:* 1245, 1959.

(137) Nathan B. Eddy, Modeste Piller, Leo A. Pirk, Otto Schrappe, and Siguard Wende. "The effect of the addition of a narcotic antagonist on the rate of development of tolerance and physical dependence to morphine." Bull. Narc., *12:* No. 4, 1959.

(138) Everette L. May and Nathan B. Eddy. "A new potent synthetic analgesic." J. Org. Chem., *24:* 294, 1959.

(139) Everette L. May, and Nathan B. Eddy. "Structures related to morphine: XII. (±)-2′-Hydroxy-5,9-dimethyl-2-phenethyl-6,7-benbomorphan (NIH–7519) and its optical forms." J. Org. Chem., *24:* 1435–1437, 1959.

(140) Paul A. J. Janssen and Nathan B. Eddy. "Compounds related to pethidine: IV. New general chemical methods of increasing the analgesic activity of pethidine." J. Med. Pharmaceut. Chem., *2:* 31, 1960.

(141) J. R. Nicholls and Nathan B. Eddy. "The assay, characteristics, composition and origin of opium. No. 97. Analysis of samples of opium of unknown origin." United Nations, ST/SOA/Ser. K/97, February 19, 1960.

(142) Benjamin J. Ciliberti and Nathan B. Eddy. "Preanesthetic medication: morphine, anileridine, oxymorphone, and placebo." Bull. Narc., *13:* Nos. 3, 1, 1961.

(143) Everette L. May and Nathan B. Eddy. "The assay, characteristics, composition, and origin of opium. No. 111. The analysis of authenticated opium samples by means of direct absorption spectrophotometry." United Nations, ST/SOA/Ser. K/111, October 6, 1961.

(144) Nathan B. Eddy, H. M. Fales, E. Haahti, P. F. Highet, E. C. Horning, E. L. May, and W. C. Wildman. "The assay, characteristics, composition, and origin of opium. No. 114. Identification and analysis of opium samples by linear-programed gas chromatography." United Nations, ST/SOA/Ser.K/114, Oct. 6, 1961.

(145) Maxwell Gordon, John J. Lafferty, David H. Tedeschi, Nathan B. Eddy, and Everette L. May. "A new potent analgetic antagonist." Nature, 192 : 1089. 1961.

(146) Maxwell Gordon, John J. Lafferty, Blaine M. Sutton, David H. Tedeschi, Nathan B. Eddy and Everette L. May. "New benzomorphan analgetics." J. Med. Pharmaceut. Chem., 1962. In press.

(147) Nathan B. Eddy and Hans Halbach. "Synthetic substances with morphine-like effect: V. Tests for addiction." Bull. World Health Organization, 1962. In press.

(148) Nathan B. Eddy and Everette L. May. "Synthetic Analgesics, Part 2, B. Benzomorphans" Pergamon Press, 1962. In press.

(149) H. Halbach and Nathan B. Eddy. "Tests for addiction (chronic intoxication) or morphine type." Bull. World Health Organization, 1963, 28 : 139

(150) Nathan B. Eddy. "Statement on Relative Safety of Codeine Preparations." Read, Senate Committee on Judiciary, California Senate, Sacramento, Calif., Mar. 8, 1963.

(151) ——— "The role of the National Academy of Sciences and the National Research Council." Proceedings White House Conference on Narcotic and Drug Abuse, Washington, D.C., Sept. 27–28, 1962, p. 136.

(152) ——— "The chemo-pharmacological approach to the problem of drug addition." Read, Conference on Drug Addiction, University of California at Los Angeles, Apr. 27–28, 1963. U.S. Public Health Report (1963) 78: 673. Proceedings of the conference, McGraw-Hill (1964). In press.

(153) Nathan B. Eddy, B. Ciliberti, and Phyllis F. Shroff. "Preanaesthetic medication." Bull. Narcotics (1964) *16*: No. 2, 41.

(154) Nathan B. Eddy. "Drug addiction and the law." Britannica Book of the Year (1964), 291.

(155) ——— "The search for a nonaddicting analgesic." Proc. of symposium on history of narcotic drug addiction problems. Mar. 27–28, 1958. Public Health Service publication No. 1050, U.S. Gov. Print. Off. (1963).

Chairman Pepper. We will now take a 5-minute recess.

(A brief recess was taken.)

Chairman Pepper. The committee will come to order, please.

Dr. Brill, would you please come forward.

Our next witness today is Dr. Henry Brill, a distinguished psychiatrist and hospital administrator.

Dr. Brill, a graduate of Yale College and Yale Medical School, served his internship at Pilgrim State Hospital in New York, the same facility that he now serves as director.

Dr. Brill is a diplomate of the American Board of Neurology and Psychiatry, a fellow of the American Psychiatric Association, and a certified mental hospital administrator.

He has served as assistant commissioner for research and medical services of the New York Department of Mental Hygiene: and vice chairman of the New York State Narcotic Addiction Control Commission.

He has been director of Pilgrim State Hospital, with time out for some of his other appointments, since 1958.

Dr. Brill has served as clinical professor of psychiatry at Albany Medical College and as professional lecturer at Upstate Medical Center in Syracuse, N.Y.

He is presently a lecturer in psychiatry at Columbia University's College of Physicians and Surgeons, and clinical professor of psychiatry at the New York School of Psychiatry.

In the past, Dr. Brill has served as president of both the American College of Neuropsychopharmacology and the Eastern Psychiatric Research Association. He is currently president-elect of the American Psychopathological Association.

In addition to serving on the editorial boards of four scientific journals, Dr. Brill is a member and past chairman of the American Medical Association's Committee on Drug Dependence and Alcoholism; a member and past chairman of the National Research Council's Committee on Drug Dependence, and was recently appointed to the President's Commission on Marihuana and Drug Abuse.

In 1965, Dr. Brill was chairman of the methadone maintenance evaluation advisory committee of the Columbia School of Public Health.

I have taken the time to list but a few of Dr. Brill's many professional appointments and accomplishments. I will not detail the over 100 papers in the field of psychiatry, administration, somatic theory, and drug dependence he has authored.

Dr. Brill, we are greatly honored that you have taken time from your busy schedule to share your immense knowledge with us.

Mr. Perito, would you make the inquiries?

Mr. Perito. Thank you, Mr. Chairman.

Dr. Brill, I understand you have a prepared statement?

STATEMENT OF DR. HENRY BRILL, DIRECTOR, PILGRIM STATE HOSPITAL, NEW YORK, N.Y.

Dr. Brill. I have.

Mr. Perito. Would you care to read that statement or just summarize it?

Dr. Brill. I would like to skip through it because much of it repeats what you have already heard this morning.

Chairman Pepper. Doctor, without objection, your full statement will appear in the record, and you may give such summary of it as you will.

Dr. Brill. Thank you, sir.

I think what I would like to stress here is that the question before your committee, as has been mentioned, was already brought up in 1951, but it is different in one important respect. In 1951, the question was asked what would happen in a state of national emergency when stocks of opium derivatives were exhausted and not to be replenished. Now, today this Nation is in a secure position with respect to such an emergency, and I think that you already have heard that we have good substitutes under such circumstances so there would be no emergency in the medical practice if the supplies were cut off.

I would also like to point out that this is, to a significant degree, the direct result of a major coordinated research in which the National Academy of Medicine-National Research Council Committee played an important role under the leadership of Dr. Nathan Eddy, who was its chairman for most of the time, since 1951, and I might also add that another important element was the work of Dr. Maurice Seevers, whom you have heard this morning.

You now, as I understand it, are interested in the situation with respect to a complete substitution in a nonemergency situation, and this entails the consideration of additional important factors, factors in addition to those considered in response to the first question: That is the established patterns of medical and pharmaceutical practice, and I might add, it also relates to the habits of the public with respect to the medication they take, because one of these medications, codeine, is extensively self-administered for the treatment of cough.

From all personal experience, I am led to believe that the synthetics are playing a large and growing role in the practice of medicine, yet it appears the natural opium products and their derivatives are still extensively used in spite of the availability of heavily advertised synthetic replacements, and these synthetics are being heavily advertised in the medical press at least. The U.N. publication "Statistics on Narcotic Drugs for 1969," table 5, indicates that the amount of morphine converted into codeine actually rose worldwide from 112,350 kilograms in 1965 to 146,000 kilograms in 1969, and the corresponding U.S. figures rose from 20,000 kilograms to 23,000 kilograms, which points to a marked public acceptance of the use of codeine in current practice.

The increases were irregular, but the figures seemed to show that the natural products, and especially codeine, continue to play a very large role in world medicine and in the United States, and that the U.S. share is significant but by no means decisive in the overall figures.

It would thus seem that in a plan to influence the drug dependence field by terminating the use of natural products would call for reorientation of this aspect of medical practice within the United States and in other countries as well. Quantitatively the story relates to codeine. The issue which would have to be considered includes the relative costs of the natural and synthetic products and the relative familiarity of public and the health professions with the many characteristics of each of the various drugs because in practice few drugs are entirely or essentially identical. They tend to vary among themselves as to speed and duration of their primary action and the relative intensity and timing of their many other properties. From all available information, it would seem that a replacement is technically feasible but it would also appear that this would call for full consultation with organized medicine and pharmacy. In order to be fully accepted, such a transition would require further research to explore the many pharmacological characteristics of the substitute drugs—and this includes the question of teratogenicity, which is a thorny question at the present moment, the capacity to create deformities in unborn children—in the multiplicity of clinical situations and the many conditions under which the drugs are used and this would call for extensive laboratory studies and clinical investigations. Because when a drug comes out of a laboratory and comes into clinical practice there is a large empirical element that must enter into it, because no laboratory can ever go into all the various complex situations that are liable to be faced in actual medical practice. They can approximate it, but they can't totally reproduce it.

I appreciate the opportunity to appear before this body and realize that there is room for much difference of opinion on all these matters but have sought to identify the problems which would seem to require solution in connection with the proposal which is before you. Under emergency conditions the synthetic drugs which we now have would fully replace the natural products in control of pain and for other indications but under nonemergency conditions it would seem that the immediate reorientation of medical and pharmaceutical procedures, on the scale implied in the U.S. figures, would require a major effort, although there are strong indications that the long-term trend lies in this direction, that is, in the direction of the gradual substitution of he natural products by the introduction of synthetics.

Thank you, sir.

Chairman Pepper. Doctor, what needs to be done, in addition to what has already been done, to justify Congress in prohibiting the importation of any derivatives of opium so as to lead to the stoppage of the growing of the opium poppy? Do you think additional research is necessary, and if so, are additional funds required? What more needs to be done?

Dr. Brill. I would say yes to both counts. For example, a synthetic way of producing codeine which hasn't yet been achieved or a synthetic which will substitute completely for codeine—and we do not have a drug which is exactly like codeine—both of these would be well worthwhile in connection with the proposal, and they call for research.

In addition, if I may, there is a large amount of investigation that needs to be done and has not been done in connection with many, many interesting products that have been tested and are available for followup but have not been thoroughly investigated because of a lack of funds.

Chairman Pepper. Doctor, what do you consider the state of development of antagonistic drugs to heroin addiction?

Dr. Brill. I think we are at the beginning, sir. Naloxone is one drug which is quite acceptable to those patients who are willing to take the antagonist and the supply is as yet not extensive. I think that this is now being developed, but we need a substance which will have a longer action than naloxone has. But I must also point out that many patients will refuse to take, many addicts will refuse to take, antagonists. This is from my personal experience.

Chairman Pepper. Are you informed about the methadone experiment in New York?

Dr. Brill. Yes.

Chairman Pepper. Would you comment on the use of methadone in the treatment of heroin addiction?

Dr. Brill. When methadone is used along the lines that Dr. Eddy outlined, when it is properly used in a program of treatment, it can produce results which I think are better than any other techniques that I know for a certain number of addicts whose condition is intractable to any other procedure. But when methadone is used by other methods, by other techniques and in other ways, it can become a public health hazard and the essential difference between the medical use of methadone and the abuse of methadone is that the medical use of methadone provides physical saturation, saturation of the physical need but it produces no mental effect. Whereas, if the drug is used in such a way as to produce mental effects it produces all the harm of addiction as we know it. It produces mental effect when it is injected intravenously and when it is taken orally by beginners on an irregular basis.

Chairman PEPPER. Have you found that the use of methadone in the New York experiment with which you are familiar has reduced the amount of crime committed by the heroin addict treated?

Dr. BRILL. In the cases that are under treatment, the statistics are quite spectacular. The amount of crime was reduced by over 85 percent. But I cannot say that there was an impact on the overall crime statistics, although I know how difficult it is to evaluate overall crime statistics. But among the population that followed the methadone treatment, the reduction in crime is spectacular.

Chairman PEPPER. Mr. Perito, do you have any questions of Dr. Brill?

Mr. PERITO. A couple of brief ones, Mr. Chairman.

Dr. Brill, how would it be best to coordinate the efforts of organized medicine to move toward the use of synthetic analgesics?

Dr. BRILL. You mean to advance the use of existing synthetics or new synthetics?

Mr. PERITO. Existing synthetics.

Dr. BRILL I think an educational program would be useful. I think there is relatively little problem, as Dr. Eddy pointed out, in connection with the use of synthetics for the control of pain in connection with operations and major surgery or major accidents and this kind of thing.

The real problem is in the use of codeine as an analgesic and an antidepressant for the control of cough. Here the drug has a combination of qualities that are not easily mimicked.

Mr. PERITO. Would you acquiesce in the judgment of Dr. Eddy that methadone should not be distributed by private physicians but should only be distributed in a coordinated clinical atmosphere with proper support services?

Dr. BRILL. Most certainly.

Chairman PEPPER. Mr. Mann.

Mr. MANN. No questions, Mr. Chairman.

Chairman PEPPER. Mr. Wiggins?

Mr. WIGGINS. Doctor, your testimony indicated that one of the problems with the synthetics is that they have not been thoroughly tested to know fully their impact in general clinical use. But isn't it so, Doctor, that many of these substitutes are now in clinical use?

Dr. BRILL. Yes, sir; they are. Unfortunately, it takes years of clinical use before all the ramifications of a drug can be identified. For example, we take one of the commonest drugs in clinical use, and that is tobacco. It was in clinical use for hundreds of years before anyone suspected that it might possibly lead to pathologies in the lungs and so on. So the same has happened over and over again with newly introduced drugs. After they have been on the market for a while, questions have been raised.

Antidiabetic drugs recently had questions raised about them which are not fully answered as yet. It is a controversial subject, as you know.

So the fact that a drug is in clinical use is reassuring, but not totally reassuring.

Mr. WIGGINS. Doctor, simply because questions exist and probably will always exist, are you satisfied that those questions standing alone are sufficient reason not to warrant a statute which would outlaw morphine and thereby force the general clinical use of the substitute?

Dr. BRILL. I think there would be less difficulty with a statute outlawing morphine than with a statute outlawing all opium products. I think it would be relatively simple to outlaw morphine, although there would be, as has been brought out here, professional questions raised both on the grounds of familiarity with the morphine and on the grounds that there is a reluctance to have such things legislated. But this is not, as I see it, the major problem.

Mr. WIGGINS. The point was made by Dr. Eddy that the medical profession would require a period of orientation and education. How long do you suppose would be appropriate for that purpose?

Dr. BRILL. If I might add to that question, it might be well to allow organized medicine to come in and make its comments.

Mr. WIGGINS. They will be invited to do so.

(See Exhibit 1.)

Dr. BRILL. Yes.

Chairman PEPPER. Yes.

Dr. BRILL. I hesitate to speak for organized medicine, but it certainly couldn't be done in less than several years to the satisfaction of most people.

Mr. WIGGINS. That is all the questions I have.

Chairman PEPPER. Mr. Steiger?

Mr. STEIGER. Thank you, Mr. Chairman.

Doctor, the summation of your testimony and that of Dr. Eddy and Dr. Seevers is that there is no medical reason for retaining the natural analgesic, whatever the medical term is. Now, Doctor, as a layman, it occurs to me that we have had painted here this morning a rather unflattering picture of the medical profession, because we say we arrive on a conclusion based on a question posed in 1951, the conclusion being that in a physical emergency in which opium was not available the medical profession could readily adjust. Now, we understand, and rather thoroughly, from the testimony that it would be, one, inconvenient and it would be what is termed justifiable for natural resistance to any change, it would be difficult to stop cough.

Now, I think, it seems to me unfair to the medical profession—I wouldn't want to just leave it lying there—that the inconvenience, the comfortable familiarity with the existing natural opiates, all of these things of themselves are so important that the evils that the opiate now represents are going to be somehow set aside. It would be easy for those of us in the political arena—and I am sure some of us will—to call this an emergency situation. We truly have an emergency. There are many areas in which the emergency is very genuine. The chairman, I think. defined it pretty well at the outset.

I would hope that possibly—obviously the most comfortable thing for us, and we are interested in our comfort, too—would be for the medical profession to come forth and say now is the time and for the medical profession to declare this an emergency and for the medical profession to say these synthetics work, they will use them, those who have coughs will perhaps have to cough a little.

I don't honestly know what the clinical situation is. But I know that, again, just having heard this and having considered myself a friend of medicine, I think we are painting medicine accurately, perhaps, but unfairly nevertheless.

I wonder would you care to comment, and I suspect it is rather unfair, but on the likelihood of the medical profession feeling the need to come forward and say let's do this thing.

Dr. BRILL. I think that the real issue is the feeling of the public. The medical profession can only represent the patient in this area, because the doctor deals with a patient, and the indications for the use of codeine, for example, are not indications of life and death. They are relatively minor indications.

But I think all any technical person can do is to venture an opinion as to whether a drug can be fully substituted to the satisfaction of the patient or whether the substitution will not be equally satisfactory to the patient. I think it would be misleading, from my point of view, if I were to say that in my opinion drugs which would replace codeine would be just as satisfactory to the patient as codeine now is, particularly keeping in mind that much of the codeine is over the counter where the physician doesn't enter into it at all.

But the bar is not an absolute bar. It is a question of cost-benefit ratios, and I am not in a position to judge the benefits. I think these benefits have to do with traffic and so on, which I don't know anything about.

Mr. STEIGER. I understand. All right.

Medically, Doctor, on a scale of 1 to 10, how effective—and putting codeine at 10—how effective are the known codeine substitutes for cough suppressants on this scale of 1 to 10, and would that be sufficient to make the abolishment of opium and whatever benefits would derive on a national basis? Really, I guess that is what we are faced with. Obviously we don't want to impose a genuine hardship on the public. By the same token I have great faith in the medical profession being able to convince the public that what we are prescribing for them is good for them, even though that may not always be the case.

On that 1 to 10 ratio, what would you say?

Dr. BRILL. Well, as a rough guess I would say two or three.

Mr. STEIGER. So in your opinion that is where the gap lies, then?

Dr. BRILL. There is a possible difference, and there also is a possible difference between the usefulness of codeine as an analgesic in many cases and the usefulness of the competing analgesics. I think it is less clear cut. These are matters of judgment and opinion and not easily measured. But I think there is that difference.

But I must again say that much of this codeine, I don't know what proportion—you easily can find out—much of the codeine used has no medical intervention at all. This is a matter of public habit.

Mr. STEIGER. I must say is not used medically?

Dr. BRILL. There is abuse of the cough mixtures. That is true. There also is abuse of synthetic cough mixtures. So that is an even tossup.

Mr. STEIGER. I thank you.

Chairman PEPPER. Mr. Blommer, any questions?

Mr. BLOMMER. No, Mr. Chairman.

Chairman PEPPER. Mr. Winn?

Mr. WINN. None, Mr. Chairman.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. None, Mr. Chairman.

Chairman Pepper. Dr. Brill, I think you have given us extremely valuable testimony this morning. You know, sometimes we can be pushed a little bit to get to the conclusions that we want to reach.

I very much sympathize with what was suggested by Mr. Steiger.

Is codeine used largely in the suppression of cough?

Dr. Brill. Suppression of cough and for the control of minor pains and minor discomforts. It is an analgesic.

Chairman Pepper. We hope to hear later from the medical association and the whole medical profession on this subject. We would certainly hope that they would take the lead in trying to move as rapidly as possible, because Congress is faced with such a terrible problem in heroin addiction. I believe we all agree that it is growing worse; isn't it? (See Exhibit No. 1 for AMA views.)

Dr. Brill. Yes, sir; it is.

Chairman Pepper. The problem is so serious, and it seems impossible to stop it by law enforcement, which catches only 20 percent of the heroin being smuggled into this country. That method seems so improbable of success that we have to turn to alternatives to see what else we can do.

Dr. Brill. I agree.

Chairman Pepper. That is the reason we are trying to get technical information, scientific knowledge that would guide the Congress in seeing whether or not we may safely and properly move in this direction of stopping importation of opium. If we could stop the legal growing of the opium poppy it would be easier to police a ban. We could catch it, then.

Dr. Brill. Thank you.

Chairman Pepper. Mr. Perito has one more question?

Mr. Perito. Dr. Brill, have you had an opportunity, in your professional practice, to treat and evaluate addicts who have been given antagonists?

Dr. Brill. Yes.

Mr. Perito. What is your professional opinion about the possibilities of developing antagonists to the point where they will become an effective weapon of the clinician in the treatment of drug-dependent persons?

Dr. Brill. I think it is a very good possibility and a very excellent lead to follow. I wouldn't want to leave the impression that this is a panacea, but the antagonists certainly are one of the best leads that I know of.

Chairman Pepper. Are more funds necessary, in your opinion, to carry on the developmental work in the finding of these solutions for opium derivatives and finding antagonistic drugs to heroin addiction?

Dr. Brill. Yes, sir; to my personal knowledge many of the most important research activities in the country today in this field are feeling the pressure of shortage of funds, and I think that this is something that I have to call to your attention.

Chairman Pepper. The Federal Government might well interest itself in providing more funds?

Dr. Brill. I think so.

Chairman Pepper. Anything else?

Mr. Perito. Mr. Chairman. may we have incorporated in the record Dr. Brill's prepared statement; also, Dr. Brill's curriculum vitae.

Chairman PEPPER. Without objection, they will be admitted.

Thank you very much Doctor, for coming today.

(The material referred to follows:)

[Exhibit No. 5(a)]

PREPARED STATEMENT OF DR. HENRY BRILL, DIRECTOR OF PILGRAM STATE HOSPITAL, NEW YORK, N.Y.

On the feasibility of replacing natural opium products with totally synthetic substances in medical practice.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE: I am Dr. Henry Brill of Brentwood, N.Y., and a member of the committee on alcoholism and drug dependence of the American Medical Association and the Committee on Problems of Drug Dependence of the National Research Council. I am also immediate past chairman of both committees and a member of the World Health Organization Expert Committee on Drug Dependence. However, my statement here today is made in a purely personal capacity and I am not here as a representative of any group or organization.

I believe you already have testimony to the effect that as long ago as 1951, the Committee on Drug Addiction and Narcotics (now the Committee on Problems of Drug Dependence), National Academy of Science-National Research Council was questioned about the possibility of completely replacing natural opium products with synthetic substances in the practice of medicine. The answer at that time was a qualified affirmative and, as you know, the answer today has become an unqualified affirmative. With this I fully concur and agree that from the scientific and pharmacological point of view, such a substitution is entirely practicable.

The question now before your group is different from that which was posed in 1951. That question related to a state of national emergency in which it was assumed that stocks of opium were exhausted and irreplenishable. Today this Nation is, I believe, in a secure position with respect to such an emergency and this improvement is to a significant degree the direct result of a major coordinated research effort in which the National Academy of Medicine-National Research Council Committee played a prominent role under the leadership of Dr. Nathan Eddy who was its chairman for most of that time.

You are now interested in the situation with respect to a complete substitution in a nonemergency situation and this entails consideration of an important factor in addition to those considered in response to your first question and I refer to the established patterns of medical and pharmacological practice.

From all personal experience, I am led to believe that the synthetics are playing a large and growing role but yet it appears that the natural opium products and their derivatives are still extensively used in spite of the availability of heavily advertised synthetic replacements. The U.N. publication "Statistics on Narcotic Drugs for 1969," table 5, indicates that the amount of morphine converted into codeine actually rose worldwide from 112,350 kilograms in 1965 to 146,084 kilograms in 1969 and the corresponding U.S. figures rose from 20,089 to 23,084 kilograms. The increases were irregular but the figures seem to show that the natural products continue to play a very large role in world medicine and in the United States and that the U.S. share is significant but by no means decisive in the overall figures.

It would thus seem that any plan to influence the drug dependence field by terminating the use of natural products would call for reorientation of this aspect of medical practice within the United States and in other countries as well. The issue which would have to be considered includes the relative costs of the natural and synthetic products and the relative familiarity of public and the health professions with the many characteristics of each of the various drugs because in practice few drugs are entirely or essentially identical. They tend to vary among themselves as to speed and duration of their primary action and the relative intensity and timing of their many other properties. From all available information, it would seem that a replacement is technically feasible but it would also appear that this would call for full consultation with organized medicine and pharmacy. In order to be fully acceptable, such a transition would require further research to explore the many pharmacological characteristics of the substitute drugs in the multiplicity of clinical situations and the many conditions under which the drugs are used and this would call for extensive laboratory studies and clinical investigations.

I appreciate the opportunity to appear before this body and realize that there is room for much difference of opinion on all these matters but have sought to identify the problems which would seem to require solution in connection with the proposal which is before you. Under emergency conditions the synthetic drugs which we now have would fully replace the natural products in control of pain and for other indications but under nonemergency conditions it would seem that the immediate reorientation of medical and pharmaceutical procedures, on the scale implied in the U.N. figures, would require a major effort although there are strong indications that the long-term trend lies in this direction.

[Exhibit No. 5(b)]

Curriculum Vitae of Dr. Henry Brill, Director, Pilgrim State (N.Y.) Hospital

1906	Born Bridgeport, Conn.
1928	Graduate Yale College.
1932	Graduate Yale Medical School.
1932–34	Medical intern Pilgrim State Hospital (recognized as basis for Nat. Board Part III).
1934	Licensed New York State (28727).
1938	Diplomate of National Board (by exam) (6160).
1938	Qualified psychiatrist, New York State.
1940	Diplomate of American Board of Neurology and Psychiatry.
1951	Fellow American Psychiatric Association.
1957	Certified Mental Hospital Administrator (412).
1934–50	Resident, Senior Psychiatrist, Clinical Director and Associate Director, Pilgrim State Hospital.
1950–52	Director, Craig Colony and Hospital (epilepsy).
1952–59	Assistant Commissioner for Reserach and Medical Services, Department of Mental Hygiene, New York.
1958–64	(Director, Pilgrim State Hospital—on leave).
1959–64	Deputy and First Deputy Commissioner, N.Y. State Department of Mental Hygiene (Special reference to Research Training and Medical Services).
1964–66	Director Pilgrim State Hospital.
1966–68	Vice Chairman NY State Narcotic Addiction Control Commission (Director—on leave—P.S.H.).
1968 to date	Director Pilgrim State Hospital.

TEACHING

1955–64	Associate Clinical Professor and Clinical Professor—Psychiatry—Albany Medical College.
1958–64	Professional lecturer—Upstate Medical Center, Syracuse.
1958 to date	Lecturer—Psychiatry—College of Physicians and Surgeons, Columbia University.
1959 to date	Clinical Professor of Psychiatry, New York School of Psychiatry.

ORGANIZATIONAL

	Past President of American College of Neuropsychopharmacology and of Eastern Psychiatric Research Association.
	Currently President-Elect American Psychopathological Association.
1964–68	Elected to Council of American Psychiatric Association; Council Representative to Committee on Mental Hospital Standards and Practices.

EDITORIAL BOARD

1948 to date	Psychiatry Quarterly.
1968 to date	International Journal of Addictions.
1969 to date	Psychopharmacologia.
1971 to date	Comprehensive Psychiatry.

COMMITTEES

1958–68	Member and Chairman of Advisory Committee Clinical Psychopharmocolgy NIMH.
1959–64	Member and Chairman A.P.A. Committee on Nomenclature and Statistics (DSM II).
1969	Chairman of American Psychiatric Association Task Force on Nomenclature and Statistics.
1962–64	Member of Subcommittee on Classification to U.S. Surgeon General.
1962	Consultant to World Health Organization—Statistics and Nomenclature (Psychiatry).
	Member and past chairman of A.M.A, Committee on Drug Dependence and Alcoholism.
	Member and past chairman of National Research Council—Committee on Drug Dependence.
1969	Member W.H.O. Expert Committee on Drug Dependence.
1965	Chairman—Methadone Maintenance Evaluation Advisory Committee Columbia School of Public Health.
1970	Member of NY State Regents Committee on Continuing Education
1971	Member of Presidential Commission on Marihuana and Drug Dependence
	On various Advisory Committees—Department of Justice, FDA, and NIMH.

PUBLICATIONS AND HONORS

	Author of over 100 papers in the field of Psychiatry, Administration, Somatic Therapy and Drug Dependence.
	Member of Sigma XI and Phi Beta Kappa.
1970	Recipient Hutchings Award.
1970	Listed in current "Who's Who in America."

Chairman Pepper. Secretary Rossides, please.

The committee is pleased to call now the Honorable Eugene T. Rossides, Assistant Secretary of the Treasury for Enforcement and Operations.

Mr. Rossides serves as the principal law enforcement policy advisor to the Secretary of the Treasury. His responsibilities include providing policy guidance for all Treasury law enforcement activities, as well as direct supervision of the Bureau of Customs, the U.S. Secret Service, the Bureau of the Mint, the Bureau of Engraving and Printing, the Consolidated Federal Law Enforcement Training Center, the Office of Operations, the Office of Tariff and Trade Affairs, and the Office of Law Enforcement.

Mr. Rossides also serves as U.S. Representative to Interpol, the international criminal police organization, and was elected one of three vice presidents of Interpol in October 1969.

From 1958 to 1961, he served as Assistant to Treasury Under Secretary Fred C. Scribner, Jr. Early in his law career, Mr. Rossides served as a criminal law investigator in the rackets bureau on the staff of New York County District Attorney Frank S. Hogan. For 2 years, he was an assistant attorney general for the State of New York, assigned to the bureau of securities to investigate and prosecute stock frauds. A former legal officer for the Air Materiel Command, Mr. Rossides holds the reserve rank of Air Force captain.

A native of New York, Mr. Rossides received his A.B. degree from Columbia College and his law degree from Columbia Law School.

Mr. Rossides is a vice president of the New York Metropolitan Chapter of the National Football Foundation and Hall of Fame and a director of the Touchdown Club of New York.

Mr. Rossides, it is indeed a pleasure to have you with us today. Although your responsibilities are widespread, I understand that you are going to limit your testimony today to the role of the Bureau of Customs in controlling the illicit flow of heroin into the United States and your support for this committee's proposal for an international ban on opium cultivation.

Mr. Perito, will you inquire?

Mr. Perito. Secretary Rossides, I understand you have a prepared statement?

STATEMENT OF EUGENE T. ROSSIDES, ASSISTANT SECRETARY OF THE TREASURY, ENFORCEMENT AND OPERATIONS

Mr. Rossides. Yes; I do.

Mr. Perito. Would you care to present that to the committee?

Mr. Rossides. Mr. Chairman, members of the committee, it is a great pleasure to appear again before this committee.

I think this committee has done some of the most significant work that has been done in Congress in this area of narcotics—in the total area of the narcotics problem.

I am pleased to be here today. I will summarize my statement and read the key paragraph regarding the committee's inquiry.

Mr. Chairman and members of the committee, I am pleased to be here at the request of the committee to give my views on a narrow but significant question; namely, what would be the enforcement effect if there were an adequate supply of synthetic substitutes for opium and substances derived from opium. Put another way, would it be helpful in preventing the illegal growth and diversion of opium and the products of heroin and its smuggling into the United States. As background, let me say that there are at least five critical points in the illegal narcotics traffic:

(1) The growth of opium poppies;
(2) Illegal diversion of opium;
(3) Illegal production of morphine and heroin;
(4) Smuggling into the United States; and
(5) Distribution within the United States.

I have testified before this committee regarding the President's six-point action program. I think the President has by his personal intervention and initiatives elevated the drug problem to a foreign policy level. His White House conferences and other efforts devoted to this problem have alerted not just the international community but the national community as well. His efforts have stimulated debate, research, education, and enforcement and have recognized the role of the States and the role of the private community in dealing with the narcotics problem. The private community under discussion here today, and the medical profession particularly, have an enormous role to play in this whole problem.

This doesn't mean more should not be done. But I do feel, and it is my own personal judgment, that the President's action program has alerted the international community to the global problem of drug abuse and has brought about the action needed to combat it; and on the national scene, has arrested our incredible downward slide into drug abuse.

As I have testified before, however, let there be no false optimism. This simply means we have stopped the downward trend, turned it around, and have a long way to go to come back to the level at which we would like to be.

I am confident we will meet that challenge, because it has become a national bipartisan effort. The Congress has an essential role as does the executive in this entire area. The private community has a role. The States have the central role in law enforcement, in the distribution of needed information, in education, and indeed they might do more in research.

With this background, Mr. Chairman and members of the committee, I would answer the committee's inquiry by stating that in enforcement terms the ban on opium production as a legal item would be a definite plus. When there is no legal growth of poppies permitted, the enforcement officials will clearly have a much easier time in locating illegal acreage.

Secondly, when there is no legal acreage, the grower does not have a legal supply of opium from which to withhold and divert to the illegal market. It is as simple as that, Mr. Chairman.

It would be a definite plus, a definite step forward.

Thank you.

Chairman PEPPER. Mr. Perito, will you inquire?

Mr. PERITO. Secretary Rossides, in 1969 the General Assembly of Interpol took a position in reference to this. What was your position at that time representing the U.S. Government?

Mr. ROSSIDES. We were for a complete ban on legal production of opium worldwide.

Mr. PERITO. Is that still the position of the U.S. Government?

Mr. ROSSIDES. Let me qualify that to this extent: Yes; from the enforcement point of view we were stating that obviously and clearly it would be of substantial help to the enforcement community—the various police forces, the various customs forces throughout the world—if no legal production of opium poppy was allowed. That is still the position of the Government.

That is not to say, though, that there may not be other factors involved in the timing and phasing of this proposal. This is the push that we would want. There would be no reason not to still have that position.

Mr. PERITO. There seems to me to be some reluctance expressed insofar as the codeine aspect of the ban was concerned. Do you have at your disposal any more additional facts medically which would disabuse some of the people who felt that we could not move on it insofar as the synthetics for codeine were concerned?

Mr. ROSSIDES. Well, it would be the testimony—and this has to be up to the medical profession—it would be the testimony that this committee has heard today. I want to be very clear in the fact that as a lawyer and as a person with responsibilities of enforcement at the Department of the Treasury, and within the administration's enforcement community, we do not try to intrude upon the medical judgment. I recall, while working on the task force of Operation Intercept, thereafter called Operation Cooperation, we pinned down the doctors and said all right, what is the harm? Obviously, harm you compare with the harm regarding heroin, because an estimated 15 percent of heroin is grown illegally and produced—from the poppies—in Mexico and converted to morphine and heroin and smuggled in. But the other operation of Intercept was regarding marihuana.

What is the medical testimony? The medical evidence? We cross-examined them and pushed them as this committee is pushing, and rightly so, and they came back with the comment that there is no known good for marihuana, it can lead to serious mental health problems, and taken in conjunction with other drugs it can have a more serious effect. So we had to base it on the medical evidence and went accordingly. Research since then has tended to confirm the problem of marihuana.

Getting back to the specific point, that has to be up to the doctors, but I concur, in listening to the testimony and the chairman's questions and Mr. Steiger's questions, that the medical profession has clearly got to move ahead and rapidly. There is no simple answer to the heroin problem. It requires a multidimensional approach.

I think the President has recognized this from the outset. This committee has, and it is moving ahead on many fronts in education and enforcement, for example. If I had a dollar to spend—well, I would have spent, before these recent hearings, 90 percent on education, maybe a little less on education, a little more on research, but enforcement is just one of the elements in the effort.

I am convinced that the youth have acquired great concern about heroin and some of the other dangerous drugs. They are not nearly as convinced about marihuana yet, but every little bit helps and every little bit of pressure helps, and particularly from the Congress.

Chairman Pepper. Mr. Secretary, you heard the testimony of Dr. Eddy, and I believe Dr. Brill. Both said that heroin addiction in this country is growing. We have had testimony from the Bureau of Customs and the Bureau of Narcotics and Dangerous Drugs that with all of the splendid efforts they are putting forth and the millions of dollars of money that Congress has made available to you, the hundreds of new agents that you have been able to put on the job, yet the problem is so colossal that you are able to seize only about 20 percent of the heroin coming into this country.

Now, here at home we have thousands of dedicated law enforcement officers trying to stop the distribution of heroin in this country. There is no foreseeable date, it seems to me, when by law enforcement alone we are going to be able to stop heroin from getting into the hands and the veins of the addicts of this country.

Do you generally agree to that?

Mr. Rossides. The last statement I agree to—the last part of your statement, Mr. Chairman—that law enforcement alone cannot do the job. That is an absolute principle as far as I am concerned. I cannot agree with certain of the other comments regarding statistics. No one fully knows. Statistics in this crime area are not quite that reliable because we don't have a scientific way of gathering them.

The heroin area and crime is one of the most unusual, because you do not have a victim in the criminal sense as you do when there is a bank robbery or an assault. You do not have the heroin addict coming forward and complaining. He is trying to find where he can get some more heroin.

I do feel the total effort which has been made in the last 2 years has stemmed the tide. You can feel it when you are talking to some of the college students and others. That doesn't mean we are still not in a crisis situation.

Chairman PEPPER. You mean, sir; we are not in a crisis situation with respect to heroin use in this country?

Mr. ROSSIDES. I said that we are. We have done an enormous amount, in my judgment, in the combined Federal and State establishment in the last 2 years, and we have arrested a downward slide, in my own personal judgment. I get this from many different people—from enforcement people, from students, and others.

But that doesn't mean we are not still in a crisis. We are; obviously we are. But it took 10 years to get to this stage and the trip back may take a long time.

Chairman PEPPER. What we are trying to do is supplement the splendid effort you law enforcement people are making by seeing if it wouldn't be possible to stop the growing of opium. But you have to stop the legitimate demand. In order to do that you have to have effective substitutes.

Mr. ROSSIDES. From the enforcement point of view, this is essential.

Chairman PEPPER. That is why I feel, and I hope this belief is shared by the committee, that more money spent in research to find these synthetic substitutes, and more money spent in trying to find antagonistic drugs so that the pusher's market would be diminished, would help law enforcement in the country.

Mr. ROSSIDES. No question whatsoever, Mr. Chairman.

I used to stress that out of the dollar I would want most of it going for education. I have changed in the last year to now add the need for research. I do want to point out the President has substantially increased funds for research and education. But that doesn't mean more may not be needed. That is up to the Congress and the executive to work out.

Chairman PEPPER. Mr. Blommer?

Mr. BLOMMER. No questions, Mr. Chairman.

Chairman PEPPER. Mr. Mann?

Mr. MANN. Recognizing that the abolition of legal growing of the opium poppy would necessarily be pursuant to an international agreement, almost worldwide, what good would it do for the United States, through the Congress, to take unilateral action to abolish the importation of opium? What good would it then do you in trying to negotiate an international agreement with other countries?

Mr. ROSSIDES. I would say, without commenting fully on the premise—because it can be done unilaterally by each country——

Mr. MANN. Yes.

Mr. ROSSIDES. (continuing). The will of the Congress spoken after hearings, after testimony, after review and analysis—that this is the judgement of the Congress of the United States, would have, in my judgment, a very salutary effect throughout the world, throughout the nations that are members of the United Nations, and it would be a plus.

Mr. MANN. But without other sanctions we have merely cut off our trading point as far as the control of the market is concerned if you say, "Well, we don't need your poppy any more." Why should this cause them to stop growing it?

Mr. ROSSIDES. When you say sanctions, you are talking about negotiation and added factors are involved; this is another step in the negotiation process. I think, for the first time, the United Nations has been galvanized to do something following the President's speech last October, and our own contribution of $1 million out of a $2 million pledge. I think other nations are coming forward. A conference on the revisions of the 1961 Single Convention on the Control of Drugs is planned, hopefully, for early next year with proposals for constructive amendments being considered.

Now, all of this is helpful. I happen to feel that the publicity value of public opinion, hearings, and of statements and of positions are helpful. It is no panacea, but it is a step and it is a helpful step.

Mr. MANN. Thank you

No further questions.

Chairman PEPPER. Mr. Wiggins?

Mr. WIGGINS. Yes, sir; I would like to continue with the questions started by my colleague, Mr. Mann.

The United States constitutes a major portion of the world demand for the lawful manufacture of morphine, and accordingly, if we were to stop our importation of it, it would have more than publicity impact on those supplying countries; wouldn't it?

Mr. ROSSIDES. Yes, Mr. Wiggins; I should have added that. It certainly would. The countries that are selling to us would not have the market. So that they would then be possibly more inclined to look for other crops.

Mr. WIGGINS. We have observed in Turkey, for example, the elimination of provinces where the growing of poppy was permitted lawfully. I think we are down to about six or seven now, as against a high of more than 20 not too long ago.

Can you comment on the enforcement within the nation of Turkey as to the illicit growing of poppy in those provinces where it has been discontinued?

Mr. ROSSIDES. Yes. Our reports are that it has been quite successful in the provinces where it has been discontinued. It was up to 21 provinces and is now down to seven. Reports that we receive are that in those provinces in which growth has been lawfully discontinued, enforcement has been quite successful.

The main growing areas are still in the seven provinces. But at least the enforcement effort has been successful in the provinces.

I might commend the Turkish Government for these efforts, and they are devoting more manpower to this problem, and I might quote the new Turkish Government's public comment recently made by the Prime Minister, Mr. Erim:

> Our Government believes that opium smuggling, which has become a terrible disaster for the youth of the world, is hurting above all our humanistic sentiments: therefore due importance will be attached to this problem. Opium producers will be provided with a better way to make a living.

That is a step forward. Everybody, including the United States, has to do more, as this committee is pointing out.

Mr. WIGGINS. Would the stopping of the importation of lawful morphine into the United States, in your opinion, tend to stimulate the Government of Turkey to accelerate its program of cutting down these provinces where the opium poppy is lawfully grown?

Mr. ROSSIDES. I would have to pass on that, Congressman. I would have to check with the State Department and get back to the committee. I just don't know. I am not in a position to know. (See exhibit 6.)

Mr. WIGGINS. Well, let us suppose that there is no more lawful opium poppy grown in Turkey. What impact would that have on organized criminal activities in the United States?

Mr. ROSSIDES. Well, the impact would be significant, in my judgment, and they would look to other sources, Southeast Asia, other possibilities in the Near and Middle East. But clearly you have made a major advance because you have disrupted a known pattern of trade, of illegal activity.

One of the things that we are doing, we are making strenuous efforts to analyze, review and do something about the situation in Southeast Asia, even though the percentage, we estimate that the percentage of opium coming from there is quite small. There is an enormous amount grown in Burma and Thailand, and most of it is used in the area, but we are trying now for the first time to be ahead of the game instead of our just reacting. In fact, the organized criminals are not going to stop when they see a profit. We have to have a total fight. It has to include enforcement, education, research; every possible way.

As I say, I think we have done a good job. I really do. But more has to be done.

Mr. WIGGINS. It is generally known that the largest opium producers in the world are India and the Soviet Union with Turkey third. It is usually stated, however, that there is minimal diversion from India and from the Soviet Union.

Do you think if we were to ban the lawful importation of morphine that we run the risk of development of an illicit market in these two areas?

Mr. ROSSIDES. I do not.

Mr. WIGGINS. Well, now let's turn to Mexico. Usually the figure is 5 to 15 percent, something of that range, is attributed to Mexico as a source of heroin. It is not grown lawfully in Mexico at all. Mexico is not one of the—what is it, seven—countries that may lawfully grow poppies?

Mr. ROSSIDES. Correct.

Mr. WIGGINS. What impact do you think it would have, if any, in Mexico?

Mr. ROSSIDES. None—no real impact in Mexico—because it is already illegal there as is the growing of hemp. The problem in Mexico is that the growth is in the mountains—very difficult areas to detect—and inaccessible areas where it is quite difficult to prevent the growth. The Mexican Government, however, has made many strenuous efforts and has had some success. But a great deal more needs to be done and is being done.

We have just concluded the fourth or fifth meeting with our colleagues from Mexico, and I commend the efforts of the Mexican Government and the public condemnation by the Mexican Government of the trafficking in heroin and marihuana. They are doing better. Again, it is an international problem. We cannot be satisfied. We cannot say that anyone is doing adequately, except maybe Japan, which took care of the heroin problem by the strictest kind of enforcement, moral and cultural, and public effort. Every one of the policemen in Tokyo is a narcotics expert, and with their tough customs efforts, Japan has done the job. What I am saying is that I don't want to point a finger at any one country, because we are all guilty. But no matter how much more we are doing, we are not nearly at the point where we can even think of seeing the end of the road, and we are just going to have to redouble our efforts.

Mr. Wiggins. I would like to conclude, Mr. Chairman, with just a brief comment.

I don't think any of us have ever felt that the prohibition against the importation of morphine in this country would be in and of itself a panacea. But there are many incidental fallout benefits for doing so. One of them is the disruption of the organized criminal infrastructure involved in the importation of heroin in this country. It took many, many years to develop the chain from Turkey into the Port of New York. That in and of itself is a substantial achievement.

Chairman Pepper. If you will excuse me just a minute, while you are on that subject, there are two things I want to ask the Secretary.

One is, can you tell us what is the extent of the involvement as you have found it of what we call organized crime in the importation of heroin into the United States? How deeply is organized crime involved in the importation of heroin?

Mr. Rossides. Mr. Chairman, practically every bit of heroin brought into the United States is brought into the United States by organized crime. The heroin traffic is a highly organized criminal conspiracy.

Now, what is the definition of organized crime? That is where people may disagree. My first law enforcement came while working under Mr. Hogan, probably the greatest district attorney that the Nation has had. He would never allow his assistants to use the word "Mafia," because it gave the false impression that the Mafia was the only part of organized crime.

Organized crime is a criminal conspiracy of a continuing nature. I would say this, that there have been more members of certain of the Mafia families involved before—probably less now—but the groups that are involved now in the heroin traffic are of all ethnic groups, all religious groups, and all racial groups. The key groups outside the country are the French Corsicans. Certain of the families—the Mafia families—are still involved at the importation level. They take their cut on getting it in. They do not have, as they do in their other enterprises, the distribution system up and down the line. In gambling, for instance, they will take care of someone that is pulled in, provide him with counsel and take care of the family. That is not necessarily the problem here.

You have a different distribution system. It is in the ghetto. The blacks are profiting from it, the Puerto Ricans, ethnic, Irish, Italian, Greek, every group.

My only point is that organized crime is involved, but we cloud the issue when we try to equate organized crime with the Mafia.

My point is that organized crime is far broader.

Chairman Pepper. Can you give us an estimate as to the number of people who make up that organized crime group responsible for the importation of heroin into this country?

Mr. Rossides. I would not have that at my fingertips, nor would we have a firm figure of the number of persons involved.

Let me review that with my staff, Mr. Chairman, and try to supply the committee with an estimate of the number of persons that you are talking about.

Chairman Pepper. We would appreciate it if you would get us that information.

The reason I ask particularly is because Mr. William Tendy, formerly of the U.S. attorney's office in New York, told our committee that, as I recall it, 10 to 15 organized crime figures were responsible for most of the heroin smuggled into the United States.

Mr. Rossides. I believe they meant syndicates. I would agree with that figure. I would agree you are talking about probably up to 15 at a maximum of significant criminal conspiracies, of organized crime, of all types, natures, and backgrounds.

Chairman Pepper. One other question. Do you have any estimate or could you get us one as to how much all the growers of the opium poppy in the world—I mean, growing it in any appreciable quantity—are making from that production.

Mr. Rossides. I don't have it now. I will try and supply it, Mr. Chairman.

(The information requested was not available at time of printing.)

Chairman Pepper. If we and others working with us were to give every opium poppy grower in the world the same amount of income that he is now deriving from the growth of the opium poppy, how much would it cost the participating nations in such a program?

Mr. Rossides. I will try and find out, Mr. Chairman, but I would like to go on record as strongly opposed to any concept of preemptive buying. It would simply stimulate production and it would take away the responsiblity of each nation to handle the problem as part of the international community. I just want to make sure of that.

Chairman Pepper. I don't think anybody on this committee would follow that will-o-the-wisp of wanting to start the United States in buying all the opium production in the world. I am not talking about that.

I am talking about if you got them to grow soybeans, wheat, or something else, if they had the guarantee of the same income from the growing of legitimate products, how much would the financial burden be upon the nations including the nation where the growing occurs?

Mr. Rossides. I would answer that. I will find out the figure, if it is available. There would be no financial burden because what you would be doing is substituting a crop. So really you would be making an investment, a capital investment for the group.

Chairman Pepper. Yes.

(The information requested was not available at time of printing.)

Chairman Pepper. Mr. Steiger?

Mr. Steiger?

Mr. Steiger. I yield to Mr. Wiggins.

Mr. Wiggins. I have just one more question, Mr. Rossides. There is the possibility that if effective synthetics are mandatory in this country that they in turn would be widely abused and diverted. Let's suppose that happens. Has your experience indicated that the organized criminal groups within this country have been in the business of diverting amphetamines, for example?

Mr. Rossides. Oh, yes.

Mr. Wiggins. Do we change the nature of the enemy in any way? I would like you to comment on the ease or difficulty of controlling diversion from lawful manufacturers in the United States as distinguished from lawful producers of natural poppy elsewhere.

Mr. Rossides. I would refer the diversion problem to the Bureau of Narcotics and Dangerous Drugs, which has the responsibility for preventing illegal distribution of dangerous drugs. (See testimony of John Ingersoll, Director, BNDD, on June 2, 1971.)

There is no question that there are efforts by organized crime to steal the pills, and one of the reasons for the Drug Abuse Act of 1970 was that before there were not the proper controls on the manufacture and distribution in following production down the line so that you had a controlled system. It was a simple thing to sell a million pills to a post office box number in Tijuana and then smuggle them back into the United States. It was really very simple.

My own feeling is if we are able to be more successful in stopping heroin from coming in, organized crime would naturally try to divert to dealing in pills. But again it is a manageable problem. It is something we are trying to do in the area of cargo theft. It is not that difficult to develop a system at the ports of entry.

Mr. Wiggins. Is it more manageable than the difficulty you are experiencing in preventing the importation of heroin?

Mr. Rossides. I haven't looked at it enough. In my judgment it would be. But you have got to remember that a lot of pills are produced. I hadn't thought of the comparison of the problem, but it is not—let me put it a different way. I would rather face the problem of increased effort to divert the pills that would come from a successful effort to prevent the heroin being smuggled into the United States. I think that is far more manageable and we can move in that area by careful controls by the manufacturers themselves in many ways.

Chairman Pepper. Mr. Steiger?

Mr. Steiger. Yes, Mr. Chairman.

Mr. Secretary, you have been very candid, and I appreciate it. In your relations with Interpol and with other enforcement people from these other countries, as a cold, practical matter if there were to be—somehow we could achieve international agreement that would ban the poppy, how rigid do you think the internal enforcement would be, say, in Turkey, and I might add that the seven privinces which now produce, which Turkey has reduced the legality of the poppy, it is my understanding and you indicated the same thing, that still had about 90 percent of the existing poppy production. So it really sounds good to go from 20 to seven, but we haven't reduced the production by 30 percent.

In those areas of five or 10 poppy producers, as a practical, political matter, how tough would their enforcement be?

Mr. Rossides. Well, even on the question—if it were made illegal?

Mr. Steiger. Yes; how tough would the Turkish police be on their people?

Mr. Rossides. I think we have to commend the new Turkish Government for its forthright statement. The first time that a public statement has been made, and I do commend them for that.

The problem then would be the will of the Government of Turkey, and I am convinced that they would be able to handle it.

Mr. STEIGER. Well, of course, you know, we talk about preempted buying. One area this country has expertise in is in paying people not to grow things. We have a great, long history of that. I am convinced, as apparently the chairman is, that we could produce a viable plan in which we could augment the poppy growers' income to the point where he wouldn't have to grow poppies at a fraction——

Mr. ROSSIDES. Crop substitution is the answer. I don't consider that to be preemptive buying.

Mr. STEIGER. But we are dealing with a very real problem as we understand it, the guy wants to grow poppies, he has grown poppies forever, and his folks before him, and that is something a little tough for us to understand. I am asking you how valid is this desire to grow poppies on the part of the seven Turkish provinces and how emotional an issue is it within those provinces.

Mr. ROSSIDES. I would pass and let the State Department come up with the analysis of the psychology of the Turkish farmer.

(The analysis referred to above follows:)

[Exhibit No. 6]

DEPARTMENT OF STATE,
Washington, D.C., July 2, 1971.

HON. CLAUDE PEPPER,
Chairman, Select Committee on Crime,
House of Representatives.

DEAR MR. CHAIRMAN: I refer to your letter of May 27, requesting information about Turkey and opium.

As you may know, on June 30 that country's government showed a strong sense of international responsibility in taking the difficult decision to ban further opium cultivation to be effective approximately 1 year from now. Under Turkish law farmers must be given 1 year's notice before opium poppy planting can be prohibited in areas where cultivation has been permitted. Nonetheless, in his statement explaining the opium ban, the Prime Minister has said that he wll take every measure to eliminate smuggling and he will undertake a program to induce farmers, who are legally permitted to plant in the fall of 1971, to voluntarily abstain from planting. Beginning in the fall of 1972 opium poppy will be banned throughout Turkey.

We have also been encouraged by other recent evidence of the Turkish Government's intention to prevent Turkish opium from entering illicit channels. On June 18, a strict opium licensing and control bill was reported out of committee; it was passed by the National Assembly of the Parliament on June 21. The bill is now under consideration in the Turkish Senate. We anticipate that the legislation will pass before the end of the session, now scheduled for July 30.

In addition, measures which the Turkish Government has taken to insure collection of the total production from this year's harvest will result, we believe, in a much improved performance. Among these new measures are: training of additional agents; an increase in the purchase price of the opium gum; provision for advance cash payments to the farmers; collection of the gum at the farm immediately after harvest; and improved coordination of the elements involved in the collection. Moreover, enforcement efforts are also showing improved results.

The amount of opiates seized during the first 4 months of 1971 (equivalent to 574 pounds of pure heroin, which would have been worth about $60 million in the U.S. market) is more than double that seized during the entire year of 1970. It is also more than the total amount seized by U.S. enforcement agencies within the United States and at our borders during these same 4 months.

With regard to substitute crops, none have been identified that can replace opium poppy in all the provinces where it is grown. The Turkish Ministry of Agriculture is conducting research into this problem with assistance provided under an AID loan. However, agricultural research by its very nature is a slow process. Some possible alternative crops have been identified and further investigations are being conducted. The Turkish Agricultural Extension Service is working with farmers in those areas where production has been banned teaching the farmers ways of increasing their yields of such crops as sunflower seeds, vetch, various fruits and vegetables and new varieties of wheat.

Prime Minister Erim recognized that the cost and difficulties of controlling opium cultivation were greater than the economic importance it has for the Anatolian farmer, great as that is. His courageous and statemanlike action will greatly help to reduce and to disrupt the existing pattern of illicit international trafficking, and it will provide an example for other countries. I enclose a translaton of Prime Minister Erim's statement explaining his Government's reasons for terminating opium production and a copy of the Turkish Government's decree.

I hope this information will be helpful. Please do not hesitate to call on us when ever you feel we might be of assistance.

Sincerely yours,

David M. Abshire,
Assistant Secretary for Congressional Relations.

(Enclosure 1)

Statement of Prime Minister Erim.—June 30, 1971

In recent years the abuse of narcotics in the world has assumed a very serious and dangerous condition. This situation has been described by the United Nations as almost an "explosion." Several times more production is made of narcotic drugs than is needed for legitimate and medical needs. For this reason, the lives of millions of persons who use narcotics end. In some countries, this deadly disaster is spreading rapidly, particularly among youth. It is noted that even 12-year-old children are drawn to drugs. Countries which never used drugs 10 years ago are now its victim. The tragedy has spread even as far as the African countries. Furthermore, addiction has begun to threaten all the members of the community. Youth in particular must be protected from this addiction as a great duty for the sake of mankind.

We have seen what a great danger the world is facing. We touched on this in the Govenment program which our Parliament passed: "And indicated that the problem of opium smuggling, which has become a destructive tragedy for all young people in the world, will be seriously undertaken by the Government, which believes before all else that this harms sentiments of humane consideration. Opium growers will be given support by showing them a better field for earning their living."

Indeed, Turkey has not remained a stranger to the development of the problem of narcotic drugs, to the international agreements made in this matter since the beginning of the 20th century, and to the work of the United Nations. On the contrary, she has joined in the agreements and has taken decisions to end this disaster.

Turkey has participated in all the international agreements made on the subject of narcotics beginning with the Hague Agreement of 1912; those concluded agreements in 1925, 1931, 1936, 1946, 1948, 1953 and 1961.

An important provision of the 1961 Narcotics Single Convention, signed by 78 nations, is the article which binds the production of opium to the permission of the Government.

Governments coming before us have fulfilled their commitments to international agreements and furnished all types of statistical information to the authorized organs of the U.N. However, the need law establishing a licensing system for planting in Turkey, which is the key point of this agreement, for some reason was not passed until this year. Our state was continuously asked by internationally authorized organs to fulfill this commitment. This shortcoming was criticized in the parliaments of many countries and by their public opinion. The U.N. Secretary General in the report he presented on this subject in 1970, based on these criticisms, said that an extensive amount of smuggling was being made from Turkey.

After this, matters took a rapid turn. In the summer of last year the matter was first taken up at the U.N. Economic and Social Committee. The Committee on Narcotic Drugs was called to an extraordinary meeting. There, the critical situation in the world was taken up and it was decided to start a struggle by taking exceptional measures in the three stages of the problem: Production, supply and demand, and smuggling. It was stipulated that a fund was to be established to assure the financial means for this purpose. The subject was agreed upon at the General Council meeting of the U.N. too.

In a law passed by the Turkish Grand National Assembly in 1966, Turkey ratified the international agreement signed in 1961. In this way, international commitments became a part of our national law. Accordingly, "In the event one of the parties fails to implement the provisions of the agreement and through this, the object of the agreement is seriously harmed, the control body will ask that the situation be corrected and can go so far as to set up an embargo against this country.

Smuggling made from our country in recent years has become very distressing for us. Governments, which were unable to prevent smuggling, decreased the number of provinces where poppies were planted from 1960 on and gradually moved to the planting of opium from regions close to the border to the center of Anatolia. Now planting has been decreased to four provinces. In this way it was hoped to prevent smuggling.

However, unfortunately, this system did not give results. During 1970 many things developed in favor of the smugglers. Although the soil products office obtained 116 tons of opium from the poppies planted in 11 provinces in 1969, in 1970 the opium which reached the office from nine provinces was only 60 tons.

The whole world is asking where the difference is going. The contraband opium seized by our security forces, which we learn about in radio and newspaper reports, shows everyone the extent of the problem.

It is certain that a smugglers' gang organized on an international scale, constitutes a political and economic problem for Turkey. They will not be permitted to play around with the prestige of our country any further.

This horrible network of smugglers fools our villagers either with the wish to make extra money or by force and it tries to use them for their own ends. Of the tremendous sums which revolve around these transactions, the poor hard-working Turkish villager actually does not get much. The smugglers pay 400 or 500 liras for an illegal kilo of opium to the villagers whom they force to break the law. By the time this opium reaches Turkey's borders, the smugglers have made a profit many times multiplied. After it leaves our country and throughout its route, the value of the drug becomes augmented more and more; in the end it reaches an unbelievable price. International smugglers are earning millions from the raw opium produced by the villagers, but the Turkish farmer gets only a paltry sum. In countries where health is endangered through this opium, because smuggling cannot be prevented in Turkey, anti-Turkish opinions are created.

The Turkish villager also naturally feels bitter against this problem created by the smugglers who make millions from the back of our farmers. All Turkish citizens also feel a moral pain that our country is blamed for smuggling which is poisoning world youth.

The measures to be applied to control smuggling are extremely expensive. In general, poppies are planted in one corner of the field. For this reason, it is necessary to establish an organization which can control an area 10 times that of a total poppy farming area of 13,000 donums which may actually be planted. Vehicles, gasoline, personnel and their salaries must not be forgotten. Smugglers on the other hand, it must be remembered, will resort to any means. Until now, foreign assistance was obtained for control purposes; even an airplane was obtained for our organization. But, unfortunately, the matter was impossible to control by these means, in spite of all the efforts which were made. Our nation. which is known for its honesty and integrity, is now under a grave accusation. The time when we must end the placing of blame for deaths in other countries on Turkey is long overdue.

We cannot allow Turkey's supreme interests and the prestige of our nation to be further shaken. Our government has decided to apply a clear and firm solution. It forbids completely the planting of poppies; they have already been reduced to four provinces. The agreement ratified in 1966 also stipulates this arrangement.

Poppies will not be planted in Turkey beginning next year. However, we have given careful consideration to the fact that the farmers have until now obtained a legitimate and additional source of income from the planting of poppies. For this reason, in order that the poppy growers will not incur a loss in any way, the necessary formula has been developed. This formula is: in order to make up for the income farmers who are planting in provinces at present will lose, they will be given compensation beginning from the coming year. This compensation will work this way: the basis will be the value on the international market of the whole produce, such as opium, seeds, stems, etc., that the planters will sell to the soil products office this year.

Furthermore, in order to replace the income lost by farmers by other means, and to provide them other means or earning a living, long-term investments will be made in the region. Until these investments give fruit, villagers will continue to be given compensation. From among those who would normally plant this year, those who voluntarily give up planting in the coming Autumn will be given compensation on the same basis.

I am now addressing my villager citizens, in order that this plan may be successful and that it will be possible to establish real values for future year compensations and the criteria for investment, please turn over all your produce to the Soil Products Office. You will receive the necessary assistance in this respect. We have also raised our purchasing price. The larger the amount turned over to the office by all the poppy producers, the larger the compensation they will receive in the coming years without planting. Besides, by selling all his produce to the TMO, the producer will prove he is not the tool of the smuggler, that the Turkish farmer at no time had the object of poisoning the whole world, nor that he encouraged this knowingly. Dear Farmer Citizens, you will be the ones to save the prestige of our nation. The Government will also henceforth give special importance to your problems. Our Government has taken precautions in order that, in the end, not a single farmer family will incur a loss. Your income will be met without allowing any room for doubts; at the same time, it is planned to establish necessary installations to open new sources of income in the region. I ask you to carry out this plan and to sell all your opium products for this year to the Office at the high price established last month, thereby you will give this program a good start.

(Enclosure 2)

TURKISH OPIUM DECREE, JUNE 30, 1971

On the basis of the letter of the Ministry of Agriculture dated June 26, 1971, No. 02–16/1–01/342; per law 3491 as amended by law 7368, article 18; and per article 22 of appendix agreement dated December 27, 1966, to law 812, the Council of Ministers has decided on June 30, 1971: Definitely to forbid the planting and production of poppies within the borders of Turkey beginning from the autumn of 1972. This will be done by specifying the provinces shown on the lists attached hereto.

1. To forbid poppy planting and opium producing in provinces where warning is given as of the autumn of 1972—Afyon, Burdur, Isparta, Kutahya.
2. To forbid poppy planting and opium producing in the provinces where a warning has been given from the autumn of 1971—Denizli, Konya, Usak.
3. To give a suitable compensation as proposed by the Ministry of Agriculture and by decision of the Council of Ministers to the planters in these seven provinces where poppy planting and production have been forbidden. This will be on the basis of the opium they deliver this year to the Soil Products Office and on the basis of other poppy byproducts so that the farmers will not incur any loss of income.
4. To grant to the planters in the areas indicated in paragraph 1, who voluntarily give up planting in the autumn of 1971, the right to benefit from the compensation set forth in paragraph 3.

C. SUNAY,
President of the Republic.

Mr. ROSSIDES. But I only pass in a sense. I don't want to duck any question, because I keep coming back to what I think was a tremendous statement by the new Government of Turkey, which I think they should be commended for. The Prime Minister's statement, Mr. Erim's statement, to the effect that the contraband trade in opium, which has assumed the aspect of overwhelming blight for the youth of the whole world, is offensive on humanitarian grounds. The Government will pay serious attention to this problem. Turkey's opium growers will be shown a way to earn a better living.

We should commend the Turkish Government for this statement. I know what you are saying. The tradition of hundreds of years and——

Mr. STEIGER. My only point in this whole line of questioning. Mr. Secretary, and you obviously realize it, but I think it is important that we understand it, as I think we do, is that it is obviously a positive step, it is obviously appropriate, but we mustn't be deluded into thinking it is any kind of panacea and actually the difficulties that you are now experiencing will not be alleviated completely. There will still be attempts made by this organized crime organization if they have to go somewhere else. It took them a long time to work up their Turkish-American lines, but they now know how to do it and there are lots of places they can go, as you indicated, and as Mr. Wiggins replied, there is a question about Mexico.

I think it might be worthwhile if you could help the committee in finding out what the Japanese customs did, for example, that enabled—aside from the educational program they went through as described—what actual——

Mr. ROSSIDES. Correct. I will be happy to submit a statement that the committee would hopefully consider whether it wanted to include it as part of the record. I was not aware of the enormous success of the Japanese until last year. It was a total effort by the Government and was effective as a result of their cultural heritage, which provides other avenues for relief of tensions. But their national police and their customs police did a tremendous job, and they don't have a heroin problem. In fact, they get upset when there is a seizure of marihuana, as being a very dangerous thing, and they are concerned about this Nation's efforts to ease the penalties in marihuana.

We have a difficult problem. I think the easing of penalties was good on the first offenders.

Chairman PEPPER. Excuse me. You say you have that report?

Mr. ROSSIDES. I will submit a statement regarding it.

Chairman PEPPER. We will incorporate it with your testimony.

Mr. ROSSIDES. I will commend the Washington Post on this, because it was their article last fall which was practically a full page article.

(The statement referred to above follows:)

JAPANESE CUSTOMS' SUCCESSFUL CURBING OF HEROIN TRAFFIC

According to reports in the past few months, Japanese Customs have successfully curbed the importation of heroin into Japan. Much of this success was based on tightened surveillance of incoming traffic—especially ships.

The customs officials were supported in their effort by strict enforcement of narcotic laws by police who were well trained in narcotic enforcement, a hard hitting press-TV campaign, and the cooperation of the Japanese people.

Chairman PEPPER. Any other questions?

Mr. STEIGER. No.

Chairman PEPPER. Mr. Winn?

Mr. WINN. Thank you, Mr. Chairman.

Mr. Secretary, two questions. Do you consider the college students who bring heroin into the United States a part of organized crime?

Mr. Rossides. I do not consider it a part of organized crime when a college student goes overseas and purchases some heroin, or into Mexico and brings it back and sells it to some of his fellow students. The amount of this that goes on, in my judgment, is minimal, a very small percentage. I don't even know if it is 1 percent. There are far more who bring marihuana and hashish into the country, and they are quite organized. In the New England area 600 pounds was seized. That effort was highly organized and the marihuana and hashish were going to be sold to fellow students.

Mr. Winn. My next question was what percentage and I think you answered that. That may be 1 percent.

Mr. Rossides. Yes; a very small amount regarding heroin.

Mr. Winn. Do college students work with organized crime? They may not be considered a part of it, but they are working with the criminals to make——

Mr. Rossides. Sometimes, they are used as ducks or couriers. But do not assume anyone who is bringing in heroin is an unsophisticated, naive college student. I think very few are involved in heroin smuggling. Marihuana and hashish, moreso—and they are making a lot of money on their fellow students.

Mr. Winn. Thank you.

Chairman Pepper. Mr. Keating?

Mr. Keating. No questions.

Chairman Pepper. Any other questions?

Mr. Mann. No; thank you.

Chairman Pepper. Mr. Secretary, we thank you very much for your valuable contribution this morning.

We want to keep in touch with you and cooperate with you in any way we can.

Mr. Rossides. Thank you, Mr. Chairman.

Mr. Perito. Mr. Chairman, may the curriculum vitae of Secretary Rossides be incorporated in the record.

Chairman Pepper. Without objection, it is so ordered.

(The curriculum vitae of Mr. Rossides follows:)

[Exhibit No. 7]

CURRICULUM VITAE OF EUGENE T. ROSSIDES, ASSISTANT SECRETARY OF THE TREASURY FOR ENFORCEMENT AND OPERATIONS

As Assistant Secretary of the Treasury for Enforcement and Operations, Mr. Rossides' responsibilities include direct supervision of the Bureau of Customs, the U.S. Secret Service, the Bureau of the Mint. the Bureau of Engraving and Printing, the Consolidated Federal Law Enforcement Training Center, the Office of Operations, the Office of Tariff and Trade Affairs, and the Office of Law Enforcement.

Mr. Rossides serves as the principal law enforcement policy advisor to the Secretary of the Treasury. His responsibilities include providing policy guidance for all Treasury law enforcement activities, including those of the Internal Revenue Service.

Mr. Rossides is responsible for the administration of the antidumping and countervailing duty laws.

Mr. Rossides serves as U.S. Representative to Interpol (International Criminal Police Organization) and was elected as one of three vice presidents of Interpol in October 1969.

Mr. Rossides, 43, had been a partner in the law firm of Royalls, Koegel, Rogers & Wells (now Royall, Koegel & Wells) of New York City and Washington, D.C.

From 1958 to 1961, he served as Assistant to Treasury Under Secretary Fred C. Scribner, Jr., before returning to the practice of law in New York City.

Early in his law career, Mr. Rossides served as a criminal law investigator in the rackets bureau on the staff of New York County District Attorney Frank S. Hogan.

For 2 years, Mr. Rossides was an assistant attorney general for the State of New York, having been appointed by the then Attorney General Jacob K. Javits, who assigned him to the bureau of securities to investigate and prosecute stock frauds.

A former legal officer for the Air Materiel Command, U.S. Air Force, Mr. Rossides holds the reserve rank of Air Force captain.

A native of New York, Mr. Rossides graduated from Erasmus Hall High School, Brooklyn, and received his A.B. degree from Columbia College in 1949. He received his LL.B. degree from Columbia Law School in 1952. He is a member of the Columbia College Council, a director of the Columbia College Alumni Association, and a member of the Columbia College Varsity "C" football club.

A member of the Greek Orthodox Church, he serves on the church's highest ruling body, the Archdiocesan Council of the Greek Orthodox Church of North and South America, both as treasurer and member of the council's policy committee.

He is a vice president of the New York Metropolitan Chapter of the National Football Foundation and Hall of Fame, and a director of the Touchdown Club of New York.

He is a member of the American, Federal, and New York State bar associations, and New York State District Attorneys Association, the American Political Science Association, and the Academy of Political Science.

He is married to the former Aphrodite Macotsin of Washington, D.C. They have three children Michael Telemachus, 8; Alexander Demetrius, 6; and Eleni Ariadne, 3. Mr. Rossides has another daughter, Gale Daphne, by a previous marriage.

Chairman Pepper. I would just like to announce before we break up that these are the witnesses for tomorrow: the MITRE Corp. representatives: Mr. David Jaffe, department staff; William E. Holden, department head, resources planning department; Dr. Walter F. Yondorf, associate technical director.

Then next is Dr. Frances R. Gearing, associate professor, Division of Epidemiology, Columbia University School of Public Health and Administrative Medicine.

Next is Dr. Jerome H. Jaffe, director, Illinois Drug Abuse Program; Wayne Kerstetter, University of Chicago Law School Research Center.

Next is Dr. Robert L. DuPont, director, Narcotics Treatment Administration for the District of Columbia.

If there is nothing further, we will recess until 10 o'clock tomorrow morning in this room.

Thank you.

(Whereupon, at 1:17 p.m., the committee adjourned, to reconvene on Tuesday, April 27, 1971, at 10 a.m.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

TUESDAY, APRIL 27, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:05 a.m., in room 2359, Rayburn House Office Building, Hon. Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Rangel, Mann, Brasco, Waldie, Wiggins, Steiger, Winn, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order, please. We are very pleased to see in the audience this morning a large number of young ladies and gentlemen. We hope you will find something of interest in the hearings we are holding today.

Yesterday, the Crime Committee heard testimony from three uniquely qualified and eminently distinguished scientists and medical researchers. Doctors Seevers, Eddy, and Brill all agreed that we now have sufficient synthetic substitutes for morphine and codeine capable of satisfying the painkilling and cough suppressing needs of our Nation.

For those who were not here yesterday, let me say that the Select Committee on Crime is trying to find some way to diminish the menace of heroin addiction in this country. We have already heard evidence to show that in spite of all the efforts of the Federal Government and all those agencies cooperating with the Federal Government, we seize only about 20 percent of the heroin that is smuggled into this country. The other 80 percent comes into this country to be the largest single cause of death of young adults in some of our largest cities.

Last year, in Dade County, Fla., my congressional district, we had 41 deaths from heroin. We have already had nine this year. The number is in the several hundreds in the United States each year.

So in view of the difficulty of stopping heroin from coming in, we are looking at some options, or some alternatives, as it were. If we could just stop the worldwide cultivation of the opium poppy altogether, that would, of course, eliminate that problem. It would make it unnecessary to spend so much money trying to intercept the opium smuggled into this country in the form of heroin.

But in order to do that, we have to eliminate a very large legitimate need for derivatives of opium, because doctors use morphine and codeine in painkilling drugs. So if we cannot eliminate that legitimate need for the growing of the opium poppy, it will continue to be grown and the farmer, at least according to the pattern of the past, will continue to divert a part of his crop into the black market maintained by the international organized crime syndicate.

In order to eliminate the necessity for importing certain derivatives of opium for medicinal purposes, we are asking the scientific community of our country if there cannot be developed synthetic substitutes for morphine and codeine so there wouldn't be a legitimate need for the growing of the opium poppy anywhere in the world.

The other aspect of this hearing is to find blockage drugs which will prevent the addict taking heroin from experiencing any sensation from it. So if you take that blockage drug, you might as well not take the heroin, because you don't derive any sense of satisfaction from the taking of it. That is the reason we are engaged in this scientific inquiry into these areas.

We have received testimony from Assistant Secretary of the Treasury Eugene T. Rossides, who told us that the total eradication of opium cultivation, accompanied by domestic reliance upon synthetic substitutes, would be a definite plus to the law enforcement community charged with the responsibility of policing our borders. Mr. Rossides further told us that the switch from the natural opiates to the synthetics might well cause a disruption in the organized criminal conspiracies which are responsible for bringing most of the heroin into the United States.

Today, we will hear testimony from scientific researchers concerning the possibilities of policing a worldwide opium cultivation ban. The first three witnesses, from MITRE Corp., will tell us about the possibility of using our satellite capabilities to police an international treaty banning opium cultivation. We will also hear testmony about the role which the scientific and engineering community can play in the international addiction crisis.

We then will move into the second phase of our hearing. In this segment we will attempt to determine whether methadone maintenance is efficacious in reducing the number of arrests and illegal activities of addicts under such treatment.

It is generally said that it costs between $50 and $75 a day to maintain heroin addiction once a person becomes thoroughly addicted to that drug. Well, not many people can afford $50 or $75 a day. Those who cannot afford it have to go out and illegally get possession of goods, which, when sold to a fence, will yield the amount of money they must have to sustain their addiction.

It is estimated by Dr. DuPont, who is in charge of the Narcotics Treatment Administration here in the District of Columbia, that each addict in the District of Columbia gets illegal possession of about $50,000 worth of goods a year in order to sustain his addiction. With some 16,000 addicts in the District, it is no wonder we have so many robbery, burglaries, and muggings on the street.

Our next witness, Dr. Frances R. Gearing, is eminently qualified to give us an analytical and statistical survey of Dr. Vincent Dole's methadone maintenance program that will help us in determining the efficacy of the methadone maintenance approach.

We then will hear from Dr. Robert L. DuPont, Director of the Narcotics Treatment Administration, who has compiled some fascinating statistical studies on crime reduction and methadone maintenance in Washington.

Our final witness today is Dr. Jerome H. Jaffe, director of the Illinois Drug Abuse Program. This multimodality treatment program is the largest in the Midwest. Currently Dr. Jaffe and his able staff are treating 1,590 addicts. Dr. Jaffe will explain his approach to methadone maintenance and the multimodality treatment method. He will also share with us his thinking about the possibilities of developing longer lasting and effective antagonist drugs. Finally, Dr. Jaffe will advise us how we can best accelerate and coordinate scientific research into the multiple problems of opiate addiction.

Our first witnesses this morning are three gentlemen who represent what America's advanced technology can contribute to the fight against social ills. David Jaffe, William E. Holden, and Dr. Walter F. Yondorf are employees of the MITRE Corp., a research and development think-tank with heavy experience in space and defense.

These gentlemen are now applying their technology to the possibility of detecting the illegal cultivation of opium.

Mr. Jaffe is a member of the department staff of MITRE, and is primarily concerned with the application of technology to criminal justice systems.

Before joining MITRE last September, he was deputy head of the public safety department of the Research Analysis Corp., where he developed program concepts for research in law enforcement and the administration of justice. Studies he directed included the relationship between the physical environment and the crime rate, logistic support to police and fire departments in combating civil disorders, and the role of police in a ghetto community.

Mr. Jaffe holds a master of science degree in physics and mathematics from the University of Connecticut.

Mr. Holden, a MITRE department head, is an electrical engineer with a bachelor of science degree from the Massachusetts Institute of Technology, and a former naval aviator. During the last 15 years at Lincoln Laboratory, MIT, and with MITRE, Mr. Holden has been responsible for many mission analyses and other planning activities in the fields of air defense, command and control at senior military levels, foreign satellite identification, airborne command posts, airborne launch facilities, missile test ranges, and Air Force test centers. He served as a foreign service officer assigned to the NATO international staff for 2 years to assist in planning NATO-wide air defenses.

Dr. Yondorf is associate technical director of MITRE Corp's national command and control division in McLean, Va. The division provides systems engineering and other scientific and technical assistance to defense agencies, primarily in the areas of communications, data processing, and sensor development. Sponsors include the Defense Communications Agency, the Defense Special Projects Group, Safeguard Systems Command, Air Force Systems Command and the Advance Research Project Agency. Dr. Yondorf's earlier MITRE assignments have included the development and implementation of a 5-year project to improve and automate JCS strategic mobility planning capabilities, responsibility for requirements analysis of the National Military Command System, the study of attack assessment systems, and research in crisis management.

Before joining MITRE in 1962, Dr. Yondorf was a senior staff member at the Laboratories for Applied Sciences, University of Chicago, where he was engaged in strategic studies and the political and economic analysis of limited conflict. Earlier, he was an instructor at the University of Chicago teaching courses in the committee on communication.

As a fellow of the Social Science Research Council, 1959–60, Dr. Yondorf undertook a study of the dynamics of political and economic integration in the European Common Market.

Dr. Yondorf was educated in Germany, Switzerland, and the United States, and holds M.A. and Ph. D. degrees in political science from the University of Chicago.

Gentlemen, we are pleased to have you with us today.

Mr. Perito, our chief counsel, will you please inquire of the witness.

Mr. Perito. Mr. Jaffe, I understand that you have a prepared statement?

STATEMENT OF DAVID JAFFE, DEPARTMENT STAFF, MITRE CORP.; ACCOMPANIED BY: WILLIAM HOLDEN, DEPARTMENT HEAD; AND DR. WALTER YONDORF, ASSOCIATE TECHNICAL DIRECTOR, NATIONAL COMMAND AND CONTROL DIVISION

Mr. Jaffe. Yes; I do.

Mr. Perito. Would you care to read that statement for the committee?

Mr. Jaffe. Yes.

Mr. Perito. Thank you, please proceed.

Mr. Jaffe. Thank you very much. I am pleased to contribute to the work of this committee at your kind invitation, and am grateful for the opportunity to discuss with you the role that the technical community should be playing in the control of narcotic and dangerous drugs. I will suggest how the application of technology could make some significant contribution to the solution of the pressing and critical problems of drug abuse and to the control thereof: I will describe some typical benefits that may be derived from the adaptation of advanced techniques; and I will suggest a program for realizing such benefits.

A little less than a year ago this committee heard a presentation by Dr. William F. Ulrich of Beckman Instruments in which he outlined the ways in which scientific and engineering capabilities could contribute to drug control. He touched on the subjects of technology transfer and systems analysis, and I would like to expand on those topics to show how some specific programs might assist those conducting the fight against illicit drug production and distribution.

Suggestions on how to solve the drug problem differ as to approach. There are those who argue for an attack on the sources: Foreign growers of opium and local manufacturers of psychotropic substances.

There are others who would have us concentrate on interrupting the distribution channels. Still others believe the attack should be focused on rehabilitating the users. I submit that we need a coordinated effort in all these directions.

To say that the problem is complex is not to argue that solutions are impossible, or slow to be realized. My thesis is rather that, if we are to achieve effective controls in reasonable time, we must begin by accepting the complexity, understanding it fully, and devising reasoned rather than intuitive or emotional responses.

Techniques which were developed for analysis of highly complex systems, if properly understood and managed, can be powerful weapons in revealing subtle relationships and vulnerabilities. The methods of systems analysis and systems engineering are not cure-alls. As with any highly structured method, the results cannot be more precise than the information used.

BACKGROUND

What then are the particular problems which should be addressed by the scientific and engineering community?

Source Detection

The sources of opium, the fields of the Middle East, Southern Asia, and of Southeast Asia, present an interesting challenge because of the combination of difficulties encountered. To begin with there is the problem of detecting the presence of small, out-of-the-way, illicit crops, primarily an operational and technological problem. Then there is the consideration that opium is often the principal or only cash crop for the local farmer, an economic problem. In Southeast Asia, some tribes have built a nomadic lifestyle based on opium poppy cultivation, a sociological problem. And we hear frequently about the political barriers to opium control.

The necessity to solve each kind of problem, and all of them on an integrated basis, is apparent. The detection of illicit crops is a key factor in the entire process because it should provide the detailed facts on which can be based the economic, social, and political solutions. Other parts of an integrated program rely, to some degree, on being able to specify the location and extent of illicit opium cultivation with precision and confidence.

Laboratory Detection

A second major problem area which may be amenable to technological attack is the location of the laboratories where the opium and morphine bases are transformed into heroin.

In the past, these laboratories have escaped detection from the air. They remain prime targets partly because of their strategic function in the heroin supply process, and partly because much raw material and important personnel can be captured at these places.

Tracers

It would be helpful to law enforcement officers if they could reliably trace the movement and chemical transformation of narcotic materials. If they could introduce an identifiable tag at the poppyfield and intercept some of that material at several points in the distribution network, a much clearer description of that network would result. The operational possibilities for such tracer materials are numerous. The problem is in finding suitable tags which are, among other things, reliable and safe.

Sensors

Another problem susceptible to technological solution is the detection of concealed drugs at short distances. It would be of immeasurable value to be able to reveal the presence of drugs hidden in suitcases, automobiles, packages, on the person, and in many other places. Devices are needed which can detect extremely small amounts of opiates with response times of seconds and reliability in the upper 90 percentile. The requirements of sensitivity, speed, and reliability tend to be mutually exclusive and difficult to achieve. Development of such devices requires extensive research and design and some amount of tradeoffs in design.

Data Bank

The complexity of the international drug enterprise is reflected in the great amount of information needed to describe the production, distribution, and consumption of the products. The effectiveness of drug control is dependent on access to that information. And the effectiveness will also be a function of how timely the retrieval is and of how complete is the data produced.

It follows that a comprehensive data bank is required as a repository of worldwide information on all aspects of the drug problem. Narcotics agents at all levels should be able to request rapid retrieval of information. The high mobility of dealers in drugs and the worldwide nature of their operations suggest the need for a similarly extensive data bank.

Operations Analysis

Referring again to the intricate nature of the illicit drug business, it is often difficult to predict the ultimate consequences of any control activity. Squeezing the balloon at one place may simply cause it to expand some place else. A comprehensive, systematic, analytic method is needed which can help to identify how other parts of the system will be affected if one part is changed.

A corollary problem is the allocation of drug control resources. Like managers in all other situations, drug control administrators must decide how to assign their personnel, equipment, dollars, and management attention so as to realize the most beneficial results. It would help these people to have a technique for anticipating the effects of their allocation decisions. No such technique will replace a good manager, but it can provide him with information he would otherwise not have.

BENEFITS

Some of the benefits which should be derived from such efforts by the scientific and engineering community are:

Worldwide location of opium crops;

Information on potential yield of opium crops;

Determination of harvesting time;
Selective destruction of crops;
Tracing of distribution networks;
Sensing of concealed material at ports of entry;
Detection of clandestine laboratories;
Rapid retrieval of pertinent data;
Identification of network sensitivities and vulnerabilities;
Assessment of alternative control measures:
Mechanism for training exercises; and
Good resource management.

I must urge you to keep in mind that these benefits, as I have been calling them, are not going to solve the full range of narcotic and drug problems. In fact, we cannot be entirely certain that all of these benefits, and others which could be added to the list, can be achieved in a reasonable time or at acceptable costs. And the changing operational requirements may make some of them obsolete before long.

But for the present, we should not overlook any tool which answers a real need, and these benefits can be vital elements to the integrated, coordinated attack which, in my opinion, is the only reasonable route to effective control.

PROPOSED PROGRAM

Before identifying how the scientific and engineering community might participate in the control of drugs, I wish to acknowledge that there are already in progress some efforts along the lines to be described. The Bureau of Narcotics and Dangerous Drugs and the Bureau of Customs have active research and development programs which address many of the points contained in this statement. In addition to their own projects, these Bureaus are being assisted by other Federal agencies which have specialized capabilities. I have met with a number of people involved in these efforts and can attest to their competence and dedication. But the scope of the ongoing efforts, and the adequacy of available resources, remain as appropriate questions before this committee. I will return to this issue presently.

Having established some of the benefits which research and development should produce, let us examine how such a program might be structured. We can conveniently view the work that needs to be done as a five-part program.

Surveillance of Opium Poppy Crops

The remote sensing—that is, from aircraft and satellites—of agricultural crops dates from the early 1930's when aerial photographs were used to locate and measure fields. Since then, observational and interpretive techniques have progressed a great deal, although much experimentation and development remains to be accomplished. I have several photographs to illustrate what can be accomplished with advanced techniques.

Mr. PERITO. Mr. Chairman, may the record reflect the lights are now being turned out and the photographs about to be shown will be made available for the committee to incorporate in its record.

Chairman PEPPER. So ordered.

Mr. JAFFE. The first figure is a well-known photo made from Apollo 9 at 131 nautical miles over Imperial Valley, Calif. It was taken with

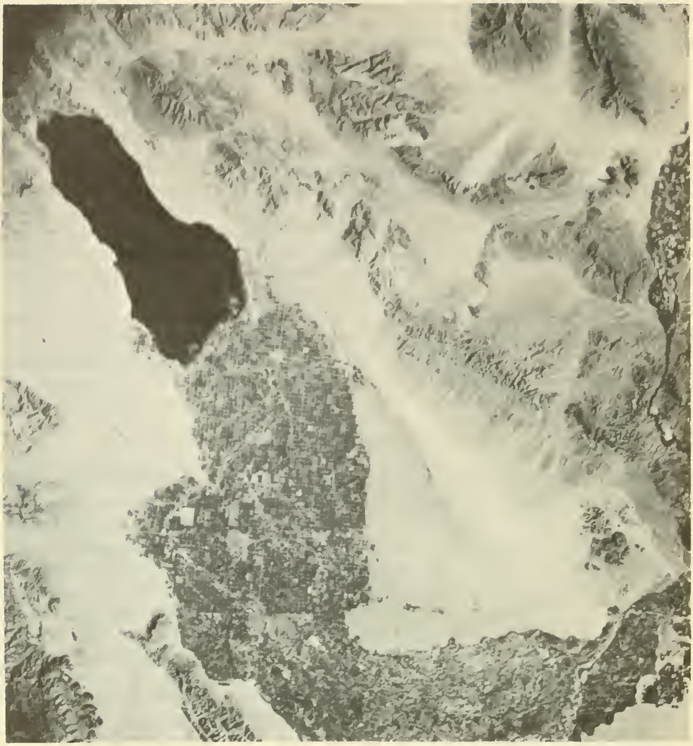


Figure 1

infrared Ektachrome film with a spectral response between 0.510 and 0.890 microns. The dark dotted patches are crops. Across the bottom is seen a section in which the amount of dotted area, and consequently the vigor of the vegetation, is markedly lower. That sharp line of demarkation is close to the Mexican border. A single color photograph like this one contains limited useful information.

The next figure (fig. 2) shows the same scene in three photos made at the same time. The one on the upper left was taken with Pan X film with a green filter; the upper right on Pan X with a red filter; and the lower photo on black and white film sensitive to infrared radiation. It is apparent that each photo produces different relative contrasts and enhances the images of some features over others.

The next photos (fig. 3) demonstrate the different responses that similar crops will provide in relatively narrow spectral bands. The left photo, made with a blue filter, shows little difference between oats and

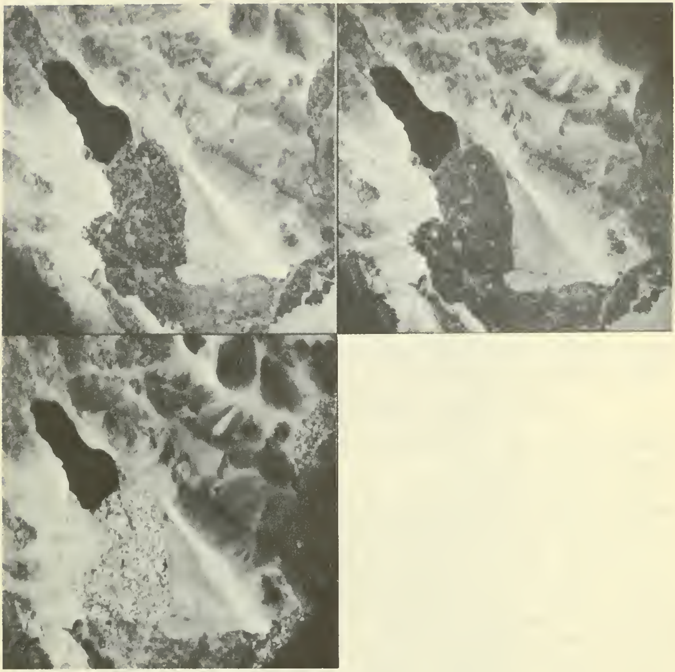


Figure 2

wheat. But the ones made with red and infrared filters show the distinction quite clearly. So, in a simple case at least, we see that it is possible to isolate crops in this way.

In fact, it is possible to do a lot better than that. The next photos (fig. 4) show how two varieties of corn which can hardly be differentiated at visible wavelengths (on the left) look quite different at infrared wavelengths.

Mr. Perito. May the record reflect the lights being turned back on and we are continuing with Mr. Jaffe's statement.

Chairman Pepper. Without objection, so ordered.

You may proceed.

Mr. Jaffe. What I have illustrated here are the mere fundamentals of remote sensing of agriculture. These techniques have been advanced

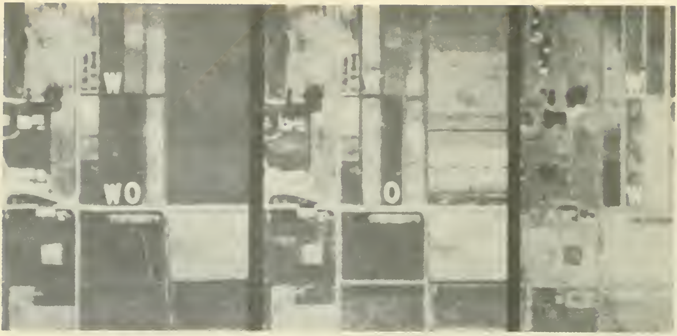


Figure 3.—Tones of wheat (W) and oats (O) differ when recorded by an airborne multilens camera filtered to three spectral regions (0.38 to 0.44 micron, at left; 0.62 to 0.68, center; and 0.58 to 0.89, at right).

[Data Collected by Purdue University Agronomy Farm.]

to include simultaneous observation in many spectral bands and computer analysis of the data.

I am not aware of opium poppies having been observed by these methods, but it is reasonable to expect that they would be readily discernible; perhaps even by single band, rather than multispectral, sensing. What is needed is a set of experiments to establish which approach produces the desired information with reference to opium poppy cultivation. It should be possible to use either an established poppyfield or a specially prepared one and to overfly it with equipment designed for spectral analysis. The signatures of poppies could thus be obtained and examined for uniqueness. Once unique, characteristic images are obtained from the test bed, the appropriate apparatus would be used in an operational test to determine what, if any, real-life difficulties might be encountered. Further refinement of the technique would follow.

Remote sensing from aircraft is very likely to be successful in locating opium fields. Similar observations from satellites, particularly from NASA's Earth Resources Technology Satellite (ERTS), are somewhat less certain to produce useful results. The multispectral sensing devices on the initial ERTS spacecraft will provide resolution of objects down to about 300 or 400 feet. The smallest opium fields are said to be about ½ acre or typically about 150 feet in linear dimension. It is possible, but not at all certain, that a distinctive signature of that size will be discernible by an instrument with the resolution available on ERTS. Needed is experimental determination of the poppy signatures and some experience with the real capabilities of the ERTS instruments. We must also consider future instruments that may provide finer resolution and other favorable characteristics.

Tracer Technology

Tracers, or tag identifiers, can be used to identify captured samples as coming from the same sources. It may be possible to introduce trac-

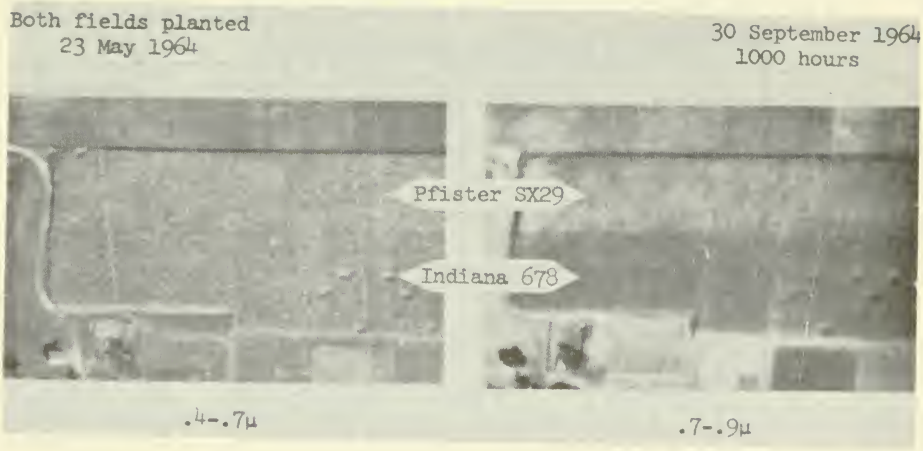

Both fields planted
23 May 1964
30 September 1964
1000 hours
Pfister SX29
Indiana 678
.4-.7μ
.7-.9μ

FIGURE 4.—Corn variety differences. Differing rates of maturity among varieties of the same crop species cause variations in response in some wavelength bands.

ers at the poppyfields or at any point thereafter. For manufactured drugs, methods of tracing are not nearly as difficult because of distinctive characteristics of tablets and capsules.

Four primary handicaps exist in the use of trace materials; inserting the tracers into the drugs and the tagged drugs into the illicit traffic; the tracer must be safe for use internally or intravenously; the tracer must be highly reliable; and a tracer, to remain a unique identifier, cannot be reused until the tagged material has been cleared from the marketplace—a condition which can require several years.

The advantages to be derived from being able to correlate the origin of captured samples, and therefore being able to correlate the network links and nodes, should compensate for the difficulties involved in overcoming the handicaps. Captured shipments can be tagged and reinserted in the network; radioactive tracers may not be totally safe, but chemically idenifiable tag materials are possible; the reliability of unique identification can be very high; and large numbers of trace materials can be found in time. To introduce tracer materials into the poppy plant, and consequently into the opium, requires trace materials that can survive the processing that transform the opium into heroin. Analysis of the morphine alkaloid, the heroin, and the impurities that remain after processing could suggest ways of altering the chemical composition. Alterations would presumably be distinguishable and hence would serve to identify a particular batch of material.

Trace materials can also be inserted into the distribution network at points other than the source. For this purpose, it is necessary to have tag materials which replace those used at later stages in the process. For example, it could be possible to use traceable acetic anhydride in converting morphine base into heroin (diacetylmorphine).

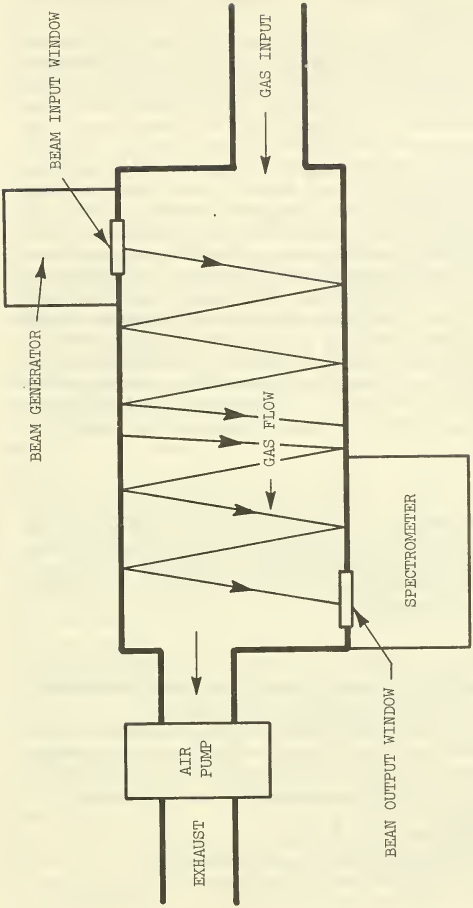
It should also be feasible to introduce trace materials still later in the network; as for example, during the cutting phases. Either chemically distinguishable but similar substances could be used, or inert and distinctive things, perhaps plastics, could be added. But all of this will take intensive investigation and development before operational utility is achieved.

Sensor Technology

Sensors for the detection of concealed narcotics and drugs, and for the detection of effluents at heroin laboratories, will also require dedicated research and development. The first task will be to identify techniques which can sense very small amounts of drugs or related materials. The second task will be the adaptation of those techniques to operationally useful forms.

More so than for other technological weapons, sensors are highly susceptable to countermeasures. It should be fairly easy, once the sensing technique is recognized, for the narcotic distributors to devise evasive procedures or devices. The need is therefore for an arsenal of sensors and a variety of ways for utilizing them in order to keep the other side off balance.

There are a number of analytic techniques which are useful in identifying narcotic and dangerous drugs. These methods include gas chromatography, infrared spectroscopy, mass spectroscopy, X-ray spectroscopy, free radical electron resonance, and a number of chemical analyses. But the apparatus which is most attractive for the opera-


BEAM INPUT WINDOW
GAS INPUT
BEAM GENERATOR
GAS FLOW
SPECTROMETER
AIR PUMP
EXHAUST
BEAN OUTPUT WINDOW

MULTIPLE REFLECTION
IR SPECTROMETER

tional situations has handicaps. These devices require preconcentration of the sample material, are too heavy to be portable, or may react too slowly for expedient analysis.

However, mass spectrometers have been made with reduced size and weight, and trade-offs are possible in design requirements. The recent intensive effort in developing air pollution monitoring equipment has resulted in promising devices and technology which might be applied to the near real-time detection of gas or particulate contaminants associated with the production of controlled drugs. Merging the fields of qualitative instrumental analysis with particulate detection, the possibility arises of highly special and sensitive mechanical sensors. Dr. Lou Rabben of the MITRE Corp. suggested a scheme developed for another purpose. He proposes to use an infrared spectrometer with a sample chamber constructed in such a manner that the infrared beam passes through the gas sample many more times than is usually the case for this type of analysis. Hopefully, this would result in greatly enhanced sensitivity. I must emphasize that the applicability of this or other techniques to drug detection is unknown. I merely wish to suggest examples of how the application of sensor technology might be pursued in the solution of these problems. Similar developments may be possible with other techniques. Adaptation of existing technology would seem to be a sensible approach to the initial acquisition of suitable equipment.

Data handling

I spoke earlier of the need for a comprehensive data bank covering all facets of the drug enterprise. A data bank will serve both the research community in its efforts to analyze the system and find its weaknesses, and the enforcement agencies in their operational activities. I doubt the need to elaborate on this item except to mention that a modest start has been made in this direction.

Network modeling

The established technique of network modeling could be applied to describe the entire procedure whereby narcotic and dangerous drugs proceed from source to user. Such a model would include:

(1) Location of illicit poppyfields; (2) growing seasons of illicit poppyfields; (3) economic analysis of poppy cultivation; (4) packaging and transport of raw opium; (5) ports of exit and entry, plus procedures followed to avoid detection; (6) chemical processing:

  (*a*) plant locations,
  (*b*) methods of shipment to and from,
  (*c*) possible signatures of processing effluents, and
  (*d*) chemical and supplies used; where obtained;

(7) finished product handling and shipping; (8) distribution systems:

  (*a*) economic analysis,
  (*b*) organizational structure; and

(9) covert intelligence; its cost versus its value.

At each point of the network, alternative routings, sources or procedures should be identified to reveal how the network would be disrupted by elimination or modification of that point.

The economic as well as physical networks should be simulated and these models should be operated to determine alternative control measures; to assess likelihoods of success of those control measures; to evaluate sensitivities of the systems to variations of the elements; and to identify the links and modes which may be most susceptible to attack. A corollary use of the models should be the training of supervisory level personnel in the Federal and local enforcement agencies.

APPROACH

A few words on how to proceed with a research and development program.

The various aspects of applicable technology—surveillance, tracers, sensors, a data bank, and network modeling—must be structured into an integrated and focused research and development program. In a systems approach of this kind, the benefits are not only those resulting from each specialized technique or procedure, but also from the coordinated use of all methods available.

As mentioned earlier, there is some work underway in the areas cited, so any program should begin by assessing the scope and direction of those efforts. I have made a limited survey which indicated that current efforts are minimal.

In addition to a status survey, an intensive feasibility analysis should be undertaken to reveal what may be technologically, economically, and operationally possible both in the short term and the far term. This feasibility study would, using a complete systems approach, show just which of the areas I have mentioned are most fruitful to pursue at the present time. The efforts in this area which are underway at BNDD and the Bureau of Customs, and through them by other agencies, need to be enlarged and unified by this coordinated across-the-board attack on the drug problem. Important consideration should be the operational needs—the real-life situations faced by enforcement agents—and potential countermeasures.

The feasibility analysis should be followed by a detailed research and development plan providing for the elements of the program suggested above and including cost estimates and multiyear projections. The plan must be produced from the point of view of an attack on the entire drug problem; from the producers to the chemical processors to the street level distributors and users. The drug problem is not static; the planning and implementation of its control cannot be static either. Every plan must be part of a logical long-term effort, but the plan will change as the problem changes. The plan should include provision for evaluation of results achieved and for readjustments in scope and direction.

SUMMARY

I have tried to indicate some of the problems faced by drug control agencies, to show what benefits could be derived from increased employment of technology, and to indicate an approach to increased involvement by the research and development community.

Programs of the kind suggested are not inexpensive and often require more time than one would like. But in the context of the overall drug problem and its direct and indirect social and economic drain on our society, the costs of an intense research and development program would be small indeed in view of the potential benefits, such as—

Locating illicit opium crops;
Detecting illegal material at ports of entry;
Developing drug network vulnerability data; and
Improving resource management.

The important aspects are (1) the need for a total systems approach; (2) the need for an accelerated research and development effort; and (3) the need to get started now.

Thank you very much.

Chairman PEPPER. Mr. Jaffe, I want to commend you on your magnificent and comprehensive statement, that you have given as to how this whole problem should be coordinated in an effective and comprehensive program.

Mr. Perito, do you have any questions?

Mr. PERITO. Mr. Jaffe, you have had some contact both with the Federal Bureau of Narcotics and Dangerous Drugs, and U.S. Customs regarding your presentation; is that correct?

Mr. JAFFE. Yes.

Mr. PERITO. Could you estimate what it would cost the Government at this point to put together the type of research and development program which you have suggested?

Mr. JAFFE. It is very difficult to answer that on a short-term basis. On a longer term basis, and comparing it to the existing budgets as I have been able to reconstruct them, which is difficult, I would guess it runs something on the order of $10 million over a 5-year period; something like that.

Chairman PEPPER. Excuse me.

You mean $10 million for 5 years?

Mr. JAFFE. Distributed over a 5-year period.

Mr. PERITO. Mr. Jaffe, do you know how much is now being spent on such efforts by the Federal Government?

Mr. JAFFE. No; I do not know precisely. I have some bits and pieces of information about what particular subagencies are spending, but that is all.

Mr. PERITO. I assume then, based upon your contacts, you would conclude that the Federal Government is spending something minimal, at best?

Mr. JAFFE. Oh, very minimal.

Mr. PERITO. If you were assigned the responsibility of policing an international narcotics treaty, wherein all the signatories would agree not to grow poppies, do you believe this technological approach could be used by the International Narcotics Control Board, for example, to police through satellite surveillance the cultivation of poppies?

Mr. JAFFE. The use of satellite surveillance may not be available to us in the immediate future. But high-flying aircraft, and ultimately the use of satellites, will provide that kind of capability. It would significantly contribute—in fact, it is difficult to imagine how such a treaty would be enforceable without such surveillance or something equivalent.

Mr. PERITO. At the present time, do you know of any accelerated research concerning an international data bank?

Mr. JAFFE. I don't have any specific knowledge about that; no.

Mr. PERITO. Do you envision that a data bank could be set up so that you could have input from several countries and protect the disclosure from those people who should not get disclosure?

In other words, can you envision a data bank which would sufficiently service an organization like Interpol, yet at the same time not be available to the individuals who could wrongfully profit by this information?

Mr. JAFFE. The question of security in data banks has received a lot of attention of late, and I would suspect that the probability is it could be done as well as it coud be done in any other area. I think that could be effected.

Chairman PEPPER. Just one question before the other Congressmen inquire.

Mr. Jaffe, would it be possible to develop any sort of technical method by which you could detect the conversion of morphine base into heroin as it takes place in the laboratories of southern France by flying over the area where the laboratories are located?

Mr. JAFFE. Yes; I think there is at least a sufficiently good chance of that being done so that it deserves more attention than it seems to be getting.

Yes; as Dr. Yondorf is saying, that would be susceptible to countermeasures, and one gets into this problem which the military faces, of countermeasures and counter-countermeasures. But I don't think that is a sufficient argument not to take the first step; that is, for us to take the initiative in trying to locate those laboratories, especially from the air.

Chairman PEPPER. Mr. Brasco, do you have any questions?

Mr. BRASCO. Yes.

I am sorry I am late, Dr. Jaffe. This is rather interesting.

I didn't get a chance to go through the beginning—that we do have at this time such devices or are you suggesting the $10 million go into the research and development of such devices?

Mr. JAFFE. I am saying that there is a very limited effort under way on the development of such methods.

Mr. BRASCO. But we don't have the devices that you are speaking about?

Mr. JAFFE. Generally not of the various things I have spoken about. Generally they are not available in an operational sense. They are not being used on the street by enforcement agencies.

Mr. BRASCO. This $10 million that you were speaking about is the cost of the entire project? Is that the cost for the entire project, as you set forth in your summary; that is, locating, detecting, developing the dragnet work and improving the resource management?

Mr. JAFFE. Yes; provided that you understand that that does not mean it includes the operational costs, the cost of using it. That figure is the cost of a research and development program that should produce such results.

Mr. BRASCO. I understand. Now, what would then be the cost after it is produced, if you have any idea, of putting it——

Mr. JAFFE. That is really a little bit out of my realm, and I don't know. For example, if we developed a technique for overflying, what it costs to run an aircraft for an hour I really don't know. But it would be that sort of thing.

Mr. BRASCO. How long, if you had the $10 million, do you think it might take to develop such a program?

JAFFE. Well, there would be some immediate results or very early results, and they would be distributed.

Mr. BRASCO. I know you said 5 years, but are you saying it is 5 years before any of the equipment could be used?

Mr. JAFFE. I use the 5 years only as a way of averaging cost. There is no significance in the 5 years, in terms of when results would be available. I would expect there to be a stream of results over a longer period of time, too. Just as a way of averaging the cost I say I think that the program might run something like $10 million over a 5-year period. If you like, say an average of $2 million a year or something like that.

Mr. BRASCO. I wasn't inquiring so much about the money. I was concerned about when it might be operational.

I am trying to find out when you would have a system that you are talking about? I am not trying to pin you down, just trying to get an idea.

Mr. JAFFE. I think it might be as early as a year before we can spot poppyfields from the air, or a fraction of a year, within a year.

Some of the other techniques, the establishment of a model for example, and the operation of that, generally takes longer because there are long periods of validation necessary while you test the thing out and make sure you got the right model.

So there are differences. I think that sensors, for example, might run 1 to 2 years, something in that period, or even less.

Chairman PEPPER. Dr. Yondorf?

Dr. YONDORF. Thank you, Mr. Chairman.

I would suggest that sensing from satellites would require much more development. It is easier with our present technology to identify poppyfiields with airborne sensing equipment; that is, with minor adaptations of sensor equipment now existing on aircraft. On the political problems of flying over foreign territory with aircraft, you are more expert than I am, but technically this is where one should start. Sensors aren't sufficiently discriminating now to identify crops from very great altitudes. Research and development money initially should be spent to develop more sensitive sensors and test them out.

Mr. BRASCO. Thank you.

Chairman PEPPER. Mr. Wiggins.

Mr. WIGGINS. I have no questions, Mr. Chairman.

Chairman PEPPER. Mr. Mann.

Mr. MANN. You imply that the governmental efforts being made now in these areas are minimal. Are they doing anything with reference to opium crop detection capabilities, sensor devices?

Mr. JAFFE. Yes; they are. In fact, with the exception of the data bank on which I was not able to uncover anything, something is being done in each of the other areas. There is something being done on the question of surveillance from the air, and some of the others—the sensors and tracers, too. There is some very limited modeling going on.

Mr. MANN. Dr. Yondorf, you suggested that aircraft surveillance to develop the techniques is a preliminary step to developing a satellite capability.

Do you think a satellite capability is possible?

Dr. YONDORF. We do think it is possible. It is just a matter of refining existing techniques. Of course, one can argue then from which altitude the satellites should operate. We have satellites that go up to 22,000 miles—synchronic altitude—and it probably is extremely difficult to see poppies from that altitude.

But low altitude satellites might well attain the discrimination one would need for this purpose.

Mr. Mann. Mr. Jaffe, are you aware of any aerial surveillance, aerial efforts made by the United States of poppyfields?

Mr. Jaffe. No; and those who are in a lot better position to have heard of any such things tell me that they are 99 percent sure that there is no such thing in existence. To date, no aerial surveillance has been made of poppyfields.

Mr. Mann. Well, is my information correct that there are poppyfields in areas of this world, Southeast Asia, for example, where we have a lot of aircraft operating?

Mr. Jaffe. That is true.

Mr. Mann. No further questions.

Chairman Pepper. Mr. Steiger.

Mr. Steiger. Thank you, Mr. Chairman.

Just a couple of questions, Mr. Jaffe.

Incidentally, I for one find your presentation very interesting as opposed to my colleagues' rather casual interest. I wonder if you have heard of the work of Joe Zabitzi—and I can't tell you how to spell it, He works for the USGS and has developed infrared photography primarily in the search of water resources and has developed——

Mr. Jaffe. I have heard of the work they are doing, but the name is not familiar.

Mr. Steiger. I think it might be of interest for you gentlemen to coordinate with him because he has done some very dramatic things I have seen, and obviously, it coincides completely with the type of thing you are doing here. I know you are aware of this, but I think the record should reflect your awareness, since your statement does not.

In all your research and development I would assume you would suggest the need for security, even in the research and development phase, so as to at least minimize the opportunity for the countermeasures you referred to?

Mr. Jaffe. Absolutely; yes. I certainly agree with that.

Mr. Steiger. I say this because, interestingly enough, Mr. Zabitzi recited to me a proposal by a gentleman from the private sector, I believe would be a friendly way of saying it, who asked him if he could find poppyfields for him. He was on a United Nations mission in North Africa, and he was asked if his technique would show up poppyfields.

This fellow, who said he was a horticulturist, which I thought was interesting, indicated that he would be willing to pay for the information as to the location of the poppyfield.

So there is an awareness among the group.

Mr. Wiggins. Horticulturists?

Mr. Steiger. Among the horticulturists.

That is all, Mr. Chairman.

Chairman Pepper. Mr. Rangel.

Mr. Rangel. Mr. Jaffe, in the course of your studies, upon what do you base the assumption that the United States does not know where these opium crops are located or where the laboratories are?

Mr. Jaffe. Primarily on the fact that there seems to be more than casual interest among the enforcement agencies in techniques of this sort when we do talk to them about these things. From the fact that they have some ongoing programs in these areas, one would assume that they don't know precisely where the fields are or where the laboratories are. And it is just information of which I don't have firsthand knowledge, but I think pretty good secondhand knowledge.

Mr. Rangel. Well, in view of the fact that we have—at least I think we can admit we have—U–2 surveillance aircraft, we have been able to detect missiles in Cuba, we have been able to determine areas of vegetation in Vietnam and Korea before this, and in view of the fact that we have a very close economic relationship with the countries that we are mentioning that are considered to be friendly to us, and so therefore there is an assumption that Government is cooperating with us, it seems to me that all of the information would lead us to believe that we know exactly where the crops are located and where the laboratories are.

Mr. Jaffe. I think there is a difference between knowing generally where they are and knowing specifically where they are. It strikes me that that really is the difference that we would be getting at with technology.

Mr. Rangel. Well, have you studied any of the reports of the sophistication of our U–2 aircraft?

Mr. Jaffe. Well, I know generally about what they can do, about their operational capabilities.

Mr. Rangel. And the information has been rather specific?

Mr. Jaffe. Yes.

Mr. Rangel. And if we can send these aircraft over unfriendly nations, I just presume we can send them over friendly nations.

Mr. Jaffe. I would agree.

Mr. Rangel. And if we can do all of this I presume that we have the knowledge that we want already.

Mr. Jaffe. I can't disagree with your presumption. The information I have is that the locations are not precisely known over a period of time. Obviously if they detect one, if they find it, they know where that one is, but——

Mr. Rangel. If my presumptions are correct, we don't need any more research and development?

Mr. Jaffe. The location of a laboratory, for example, from the air, does require additional research and development. There is no suitable way at the moment of overflying or finding a laboratory.

Mr. Rangel. We can find missile bases but we can't find laboratories?

Mr. Jaffe. Correct; because the laboratory, from the air, looks like nothing more or less than an ordinary house, somebody's private home.

Mr. Rangel. Even with information given to us by so-called friendly nations?

Mr. Jaffe. Well, I don't know about that part of it.

Mr. Rangel. Well, let me ask you one last question, Mr. Jaffe. Assuming that we did get the refined sophisticated type of research and development that you are suggesting; after we got it, what would you suggest we do with it?

Mr. Jaffe. Well, all through my remarks I stressed the need to have the research and development program aimed at the operational needs of the enforcement agencies. So presumably, the output would be something which is immediately operationally useful to an enforcement officer.

The next step, then, would be to turn it over to him and let him use it.

Mr. RANGEL. Have any of the law enforcement agencies in the United States ever requested this type of support that you know of?

Mr. JAFFE. Yes. They have ongoing programs, and I have discussed with them the magnitude of those programs. I think I can say that there is a need and they would agree to a need—not everyone, you know, of course. If you talk to the guy about his little laboratory he says this is fine, this is my kingdom.

Mr. RANGEL. Is there any agency that has a mandate to eradicate the international trafficking of drugs, that has gone on record in asking for more Federal assistance in the area you have testified to?

Mr. JAFFE. I don't know. I really don't know.

Mr. RANGEL. Thank you.

Chairman PEPPER. Excuse me just 1 minute.

Mr. Jaffe, as I understood the import of your testimony, you were assuming that if we had an international treaty or agreement that would ban the growing of the opium poppy then if somebody were to plant a field of opium poppies it could be detected by surveillance methods so that the policing could be effective?

Mr. JAFFE. That is exactly right.

Chairman PEPPER. Is your information the same as mine, that these laboratories in southern France are moved around from place to place, from time to time, so there is no fixed location?

Mr. JAFFE. That is true. They do move quite a bit. Some of them are easily knocked down and set up again somewhere else.

Mr. MANN. To that may I make a statement?

Chairman PEPPER. Go right ahead.

Mr. MANN. I was in Paris last week where I conferred with the director of the National Police Force, a representative of the BNDD in Paris, and I came away persuaded that France is making every effort in cooperating with us and the law enforcement arena to uncover the laboratories, that there is no reluctance on their part or no economic considerations on their part that are interfering with their cooperation in attempting to uncover these laboratories.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

Mr. Jaffe, your statement intrigues me, partly because I am on the Science and Astronautics Committee and I am aware of the work that has been done in the satellites and sensors by ERTS. How much work have you actually done on the feasibility of the total systems approach?

In other words, have you taken each of the suggested—like the laboratory detection tracers, sensors—have you actually tried to coordinate all that and put a package together?

Mr. JAFFE. No; we haven't really done that in this particular case. Our organization and others like it specialize in doing that sort of thing, but in this particular application we haven't yet done that.

Mr. WINN. Well, I don't mean to be rude about that, but I gather that from your guess of $10 million, because I don't think you are in the same ball park about what it would cost. But that is my own opinion.

I do think you are on the right track, and I wish possibly somewhere in your realm you would try to coordinate more closely these potentials.

I don't really care whether any law enforcement agencies in this country or the world have asked you to do it.

I would hope someone with your capabilities would do it, and there is a tremendous need for it.

Now, on the satellite capabilities, I have no doubt that within a very short period of time—and I agree with your time schedule that within a year, we can view from the air, from satellite, the poppyfields. Of course, some one might get up on the floor of the House and say that their poppyfield had been bugged, but I think we are going to have to use those approaches, and go at it from that direction.

Because here is a program that is already available to us, here is a program where we have spent millions of dollars trying to use the science and technology research capabilities of these men. These are the same men whom we are now putting out of jobs because some of our programs are being phased out, and we could use their ability to help solve some of the drug problems in the country.

I think you are on the right track. I commend you for your statement and I hope that possibly you can put some additional information in the record as far as coordination is concerned.

Thank you very much.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. No questions, Mr. Chairman.

Chairman PEPPER. Mr. Brasco, any questions?

Mr. BRASCO. Yes, I wanted to ask one question and make an observation.

I heard several times about an agreement being necessary, but it would appear to me if we are talking about satellite surveillance I don't know if we need any agreement to use that kind of technique, and I think it makes it more attractive because of that because you are apt to get an arrangement where you can perfect the equipment before you get an agreement. But the one question I would like to ask in connection with the sensors that you spoke about, which apparently would detect the drug, you mentioned that they were not of sufficient capability at this time to be possibly used in satellites.

Could you use whatever equipment you have now, and are they using it, anyone, if you know, at points of entry in the United States just to detect it, if someone has it, you know, in a bag or on their person, or somewhere in the vicinity of the airport or the seaport?

Mr. JAFFE. First of all, there are really two different classes of things that we mean when we talk about surveillance from the air and sensing at a point of entry. The techniques for detecting opium fields from the air are generally available. They just haven't been applied in this direction and haven't been adapted to this application.

Mr. BRASCO. How about the latter one that I was talking about?

Mr. JAFFE. On the latter one, the Bureau of Customs does have a program underway in that area. I don't know of anything being used now. I don't think anything has progressed to the point where it is being used now.

Mr. Brasco. Is that a possibility, in your opinion, to develop that kind of thing?

Mr. Jaffe. Very much so.

Mr. Brasco. That obviously is not included in the program you are talking about now; or is it?

Mr. Jaffe. Yes; it is included in the program suggested.

Mr. Brasco. How far might we be away from getting something like that effected? I am talking about—let's take away the satellites and the other kinds of survellances that we could develop something that customs agents could use for detecting on people, in bags, what have you, on ships coming into the United States.

Mr. Jaffe. I think with the right kind of program, on the order of a year.

Mr. Brasco. Do you have any idea as to what that specific item would cost, just that item.

Mr. Jaffe. That is so hard to do without sitting down and working it out for that particular application.

Anybody want to guess?

Mr. Brasco. No idea?

Mr. Jaffe. It is very easy to say on the order of a half a million dollars to a million dollars, something like that.

Mr. Brasco. Thank you. Dr. Yondorf, do you have anything to add to what Mr. Jaffe has said?

Dr. Yondorf. I generally agree, but not with his numbers. I, personally, guess—I haven't made a survey—that this research could be very much more expensive, as Mr. Winn has said. How much more is difficult to say. The sort of thing one would try to permit detection at entry gates would be some simple thing first, perhaps several techniques in the area of spectrum analysis. If it doesn't work one would have to try many other techniques. I don't think we have done enough research, certainly not any of us here, to have a very good feeling of what magnitude of effort would be required if at first simple things don't work.

First feasibility tests—this is indeed what we suggest here—can be undertaken and some results gotten within a year. But before one can make a solid estimate as to how much more work is required one has to have that feasibility study under one's belt. We haven't done that.

Mr. Brasco. Notwithstanding disagreement with respect to the numbers, but you do agree with Mr. Jaffe's position that it can be done?

Dr. Yondorf. That can be done; yes.

(For more detailed statement concerning proposed research and development program see exhibit No. 8(a) page 101.)

Chairman Pepper. Mr. Holden, would you add anything?

Mr. Holden. Perhaps just a statement in regard to Mr. Rangel's point that the military has been flying U–2's all over the world and satellites surveying, apparently, anything of interest. So why haven't we done this—located illicit poppyfields? It is a question of where we, as a government, point our cameras and which budget pays for what type of surveillance coverage.

It is obvious the military has done a lot of work in this area of aerial and spatial surveillance. The point here is that this activity ought to receive its fair share of the budget to apply survellance techniques to the fight on drug abuse.

Chairman PEPPER. Mr. Waldie, do you have a question?

Mr. WALDIE. Well, Mr. Chairman, I am intruding in a conversation that has already occurred, but it seems to me that to invest any great sums of money in surveying that area of the globe where opium is being grown is moving to the problem in the wrong way. We know where opium is being grown. It is being grown in Laos. It is being grown in Burma. It is being grown in Turkey.

It has not been a problem of identifying where the fields are. It is getting those who grow the opium to curtail production of it. Their failure to curtail production has not been a failure on their part to identify where it is being grown.

It would seem to me that money ought to be spent, first, to get willingness on the part of the governments that own the land on which the opium is being grown to embark upon a program of eradication and then, perhaps, to a system in identifying the areas in which eradication is necessary.

I don't think there is any problem of identifying Laotian opium. It is participated in by the Laotian Government. They are profiting from it. Burma opium crops are not any secret; neither are the Turkey opium crops. I just am not quite certain why we would invest any money in aerial surveillance to determine where the fields are that are growing opium at this point.

Chairman PEPPER. I think, perhaps, you didn't get the assumption. Mr. Jaffe would you state what the assumption was upon which you recommend the use of these detection devices for growing poppyfields?

Mr. JAFFE. First of all, the idea that there is no one route, there is not just one thing that needs to be done and that the aerial surveillance of the opium fits into a total scheme of things which would include such things as international agreements, which would then have to be enforced, and violations of that treaty would have to be detected. From there we get to the aerial surveillance. That is one route, to get to the aerial surveillance.

But it is within the total scheme of things, we think, that aerial surveillance plays a part. I would agree that in the case of Laos there may be no, or very little reason to want to know where each field is precisely.

But I think the reasons in Turkey and other countries that are closer and friendly, the reasons become somewhat more compelling. It is one thing to have an agreement from them to limit the growth of opium. It is another thing to be sure that it is actually happening and to know where it is and isn't happening.

It is in that context that we propose to use it.

Chairman PEPPER. Gentlemen, if I understand it, you surmise, as did Assistant Secretary of the Treasury Rossides, that the bringing in of heroin to this country is effectuated largely by an international conspiracy of people who are perpetrating that crime in order to make hundreds of millions, if not billions of dollars, a year. They are ruthless, they are well organized, they are ably directed.

In other words, it is a criminal conspiracy of great magnitude.

You are suggesting that if we are to be effective against that kind of an international conspiracy to bring opium into this country and distribute it we must employ or we should, to be most effective, employ the most modern techniques and the most comprehensive program for dealing with it; is that the theme of your statement?

Mr. JAFFE. I think it is a very precise statement of the case.

Chairman PEPPER. Thank you very much.

Have you anything for the record, Mr. Perito?

Mr. PERITO. Yes, Mr. Chairman.

May we place in the record the supplemental statement and curriculum vitae of Mr. Jaffe; also, the prepared statement of Mr. William S. Ulrich, which was unfortunately omitted from our New York hearings, but relates to the statements made by Mr. Jaffe, Dr. Yondorf, and Mr. Holden.

Chairman PEPPER. Without objection, they will be received.

(The material referred to follows:)

[Exhibit No. 8(a)]

SUPPLEMENTAL STATEMENT OF DAVID JAFFE, DEPARTMENT STAFF, MITRE CORP.

The suggested research and development program consists of five major parts. In what follows, each part is further defined in terms of tasks, products, and probable cost. The cost estimates are related to performance periods, as appropriate.

The structure of these efforts is highly variable, and the corresponding performance period and cost will be sensitive functions of the approach selected. A conservative approach can be taken in which ideas are investigated one at a time, or a redundant program can involve several simultaneous efforts with the same objective. The cost estimates given below are for conservative approaches. They are subject to considerable flexibility and interpretation and should be taken as gross values appropriate only for initial planning.

(1) *Surveillance of Opium Poppy Crops*

An initial experiment would establish the basis for assembly of test apparatus. After evaluation of the test gear, designs would be finalized and prototype equipment, suitable for aircraft-borne operation, would be constructed and tested. Culminating in delivery of the prototype instrument with operating procedures, this effort might cost about $2.5 million and take 1 to 2 years. The prototype instrument would be suitable for use by operational agencies in verifying functional utility and in specifying future procurements.

Satellite observations would at first make use of data from available instruments. Only then could the possible need for special hardware be determined. Depending on the results of initial experimentation, this project could cost between $500,000 and $2 million. The lower figure presumes ability to use available data; the higher one would be the cost of a special instrument package suitable for flight on a satellite.

(2) *Tracer Technology*

This effort would consist of identifying tracer materials which could be used in a variety of operational situations. Contracts would be let to chemical research firms to develop specific tracers which would be subjected to tests for susceptibility to detection and countermeasures. The product of this effort would be recommendations to the enforcement agencies for use of a variety of tracers. Costs are estimated at $1.5 million over a 2- to 3-year period.

(3) *Sensor Technology*

Techniques known to be capable of identifying heroin would be rated as to their potential for meeting the constraints of the operational situations. Contracts would be let for redesign of the two best possibilities and for tests of techniques which might prove to be applicable. Prototypes of the most promising designs would be constructed, tested, and made available to enforcement agencies. A continuing effort would be devoted to finding additional useful concepts and designs. In a 5-year period, it is expected that three or four prototypes would be completed at a total cost of about $4 million.

(4) *Data Handling*

A computerized data bank would be designed using information on all facets of illicit drug production, distribution, use, and control. Information to be included would be determined by the operational requirements of the enforcement agencies and input data would be supplied by those agencies. The agency charged with maintaining the data bank would be provided with a complete system design, including performance specifications for hardware and software. They would also receive technical assistance during the implementation and testing phases. Total cost of this effort is estimated at about $1 million.

(5) *Network Modeling*

Drug production and distribution networks, and their economic systems, will be simulated by mathematical relationships and other representations. The models will be operated to reveal sensitivities and vulnerabilities of the illicit trade. This project is viewed as a joint effort by the model developers and a user agency for 5 years, after which the model will be run entirely by the agency. The 5-year cost above the normal agency costs will total about $1 million.

[Exhibit No. 8(b)]

CURRICULUM VITAE OF DAVID JAFFE, DEPARTMENT STAFF, MITRE CORP.

EDUCATION

Brooklyn College, B.S., 1951, physics and math.

University of Connecticut, M.S., 1952, physics and math.

Additional graduate courses in solid state physics, mathematical statistics, and magnetic resonance.

EXPERIENCE

The MITRE Corp., September 1970 to present:

Department staff. Concerned with the application of technology to criminal justice systems. Communications, information systems, sensors and alarms, and specialized technology are the subjects of these efforts. Methods of approach include operations analysis and systems engineering.

Research Analysis Corp., October 1965 to September 1970:

Deputy head, public safety department. Developed program concepts for research in law enforcement and the administration of justice. Directed studies including the relationship between the physical environment and crime rates, logistic support to police and fire departments in combating civil disorders, the development of specifications for techniques and devices in the prevention of burglary, the role of the police in a ghetto community, and others.

As deputy department head of RAC's unconventional warfare department, conducted studies of dissident and insurgent groups, their modes of operation, and their vulnerabilities. Assessed national threats from internal and external population segments. Investigated the feasibility of techniques designed to measure magnitudes of insurgent activities.

American Machine & Foundry Co., Alexandria Division, 1959 to 1965:

Assistant manager, space instrumentations department. Directed the re-research and development activities of about 30 men. This group, consisting of physicists, electronic engineers, and mechanical designers as well as support personnel, specialized in the conception, design, development, fabrication, and testing of scientific instrumentation, primarily for use on satellites and rockets. Areas of primary competence include X-ray, optical, and microwave instrumention and measurements. A major project was the design and construction of soft X-ray solar spectrometers for flight on Aerobee rockets and the OSO series of satellites.

As head of physics section, directed experimental and development programs in general physics, including classical and quantum disciplines. Typical programs were the investigation of gaseous microwave spectroscopy involving extremely sensitive receivers; visible signals in space, their sources, and their interactions; development of specialized optical and electro-optical systems and instrumentation; ion and atomic beams for space communication; parametric amplifiers; the generation of submillimeter waves; standardization measurements on microwave components; microwave attenuation in dielectric materials.

Diamond Ordnance Fuze Laboratories, 1955 to 1959.

Conducted theoretical and experimental studies of the behavior of ferromagnetic materials at microwave frequencies. Investigated ferromagnetic resonance in ferrite and garnet materials to develop a microwave detector. Measured the magnetostrictive behavior of ferrites. Made infrared measurements of ferrite materials.

Ballistic Research Iaboratories, 1953 to 1955:

Employed high resolution radioactive tracer techniques in the investigation of internal ballistic effects. Designed and constructed scintillation and photomultiplier systems for detection and location of radioactive sources.

Naval Ordnance Laboratory, 1952 to 1935:

Designed tests and associated equipment for the evaluation of electronic and magnetic underwater ordnance components. Included were opertaional, life, and environmental tests. Designed an automatic and fast-operating open-circuit tester for a complex cable harness.

HONORS

Sigma Pi Sigma (physics).

PUBLICATIONS

D. Jaffe, J. C. Cacheris, and N. Karayianis, "Ferrite Microwave Detector," Proc. IRE, 46 (3): 594–601, March 1958.

D. Jaffe, Cacheris, and Karayianis, "Detection of High-Power Microwaves by Ferrites and Garnets," Diamond Ordnance Fuze Laboratories, TR–867, Washington, D.C.

D. Jaffe et al., "Some Aspects of Indicator Analysis," Research Analysis Corp., RAC–S–1900, McLean, Va., 1966.

Other reports classified or proprietary.

[Exhibit No. 9]

PREPARED STATEMENT OF WILLIAM F. ULRICH, PH. D., MANAGER, APPLICATIONS RESEARCH, SCIENTIFIC INSTRUMENTS DIVISION, BECKMAN INSTRUMENTS, INC., DATED JUNE 27, 1970

Scientific methods have numerous applications in law enforcement programs including the detection and determination of narcotics and dangerous drugs. Yet, utilization of modern technology still falls short of its potential in this field. I appreciate the opportunity to comment on this point and to discuss areas in which positive action might be taken.

To a large extent my remarks are based upon discussions with individuals from various law enforcement agencies throughout the country. Almost without exception, these people have been cordial and most helpful in describing the needs and practices in their diverse operations. From their comments it is obvious that narcotics and dangerous drugs, which only a few years ago were encountered rather infrequently, now represent a major factor in their daily workloads. Furthermore, the problem is not restricted to major population centers but can be found in virtually all sections of the country. To combat this, mre effective methods are needed for handling the large number of samples processed each day. Even more desirable is the development of new technology which will provide an effective means for halting production and preventing distribution of illicit materials.

In evaluating technology in this regard, several distinct areas merit consideration. The first and perhaps simplest of these is to improve the utilization of techniques and methods which have already been developed within this field. In an age when communications permit instant transmittal of information and computers can be used for storage and retrieval, much of the technical information within the law enforcement field still follows a relatively slow and haphazard path. Several publications are devoted to this purpose but even with these information is often delayed. Even worse is the fact that much of the information either is not published at all or is published in journals or internal publications which are not readily available to other workers. Certainly this is not an insurmountable problem but it does require an organized program which would encompass all efforts in this field.

A related area to be considered is the utilization of technology developed in other disciplines. Many of the techniques and methods applied for the life sciences, space research, environmental control, and other areas can serve equally well in the law enforcement field. In fact, this has been the basis for much of the technology now in use. However, for this to be truly effective, greater contact with these disciplines must be fostered.

In both of these areas, there should be greater opportunity for law enforcement scientists to devote time to development efforts. With present workloads, most facilities are barely able to handle daily problems let alone give thought and attention to new and improved methodology. Only a relatively few laboratories are able to do this type of work and even in these much of the effort is performed on an off-hours basis. Until this situation is improved, technical advancements will be slow and inefficient.

In assessing opium products, more specific objectives can be considered. Essentially, this market can be described on the basis of classical supply and demand principles. Greater control can be achieved either by restricting the supply or by decreasing the demand. The latter involves a host of social, environmental, medical, and other factors. Technology participates in these but is not a dominant factor.

On the other hand, scientific methods can and do play an active role in combating the production and distribution of illicit narcotics. Current technology provides simple and reliable procedures for identifying and quantitatively determining these substances even when they are heavily diluted with excipients or present in minute quantities. Unfortunately these methods are applicable mainly to seized materials and are relatively ineffective for interception purposes. Thus, they are more useful for prosecution than for prevention whereas ideally the latter would be preferred. Therefore, more consideration should be given to the development of remote sensing and tracer techniques.

In terms of opium products, at least six discrete points can be identified where technology can be applied:

(1) The point of origin; namely, the naturally occurring or cultivated crop. This represents an ideal point at which specific tracers could be added.

(2) The facilities where the raw material is refined and processed to yield high-grade morphine and heroin. Surveillance here might be facilitated by detection of the chemical reagents utilized or emitted during processing.

(3) The port of entry where the illicit material is brought into the United States.

(4) The secondary processing facility where bulk samples are diluted and repackaged.

(5) Transportation to the ultimate user.

(6) The user, his dwelling or property.

Each of these represents a unique set of circumstances and levels of difficulty. For example, chemical detection of material in sealed containers is far more difficult than when it is being processed or otherwise exposed to the atmosphere. In the first case, it may be necessary to open the container for detection whereas in the latter even remote sensing is conceivable. In terms of need, interception near the source is more desirable than at the ultimate user because of the quantities involved. The point to be made is that interception is not a simple, single concept but rather a set of individual opportunities each of which should be examined on its own merit. Therefore, an approach similar to that used by systems-oriented technologists can be visualized. A simplified outline of such a program might involve the following steps:

(1) Clearly define primary and secondary goals.

(2) Research and evaluate existing state-of-the-art or level of knowledge of the known and presumed technology which may be involved.

(3) Outline all approaches conceivable for achieving the specified goals.

(4) Evaluate current feasibility of each approach, the manner in which these interrelate, and the potential for their practical application.

(5) Select the approach or approaches which should be pursued as based on social and economic factors and the probability of technical achievement.

(6) Design, develop, and test the new technology, systems, and procedures and apply to the problem.

(7) Continually evaluate the effectiveness of each approach to insure it continues to move toward the specified goals and to detect new approaches which might evolve from the advancing technology.

Depending upon manpower and other resources, parallel efforts should be considered as a means of providing answers in the shortest period. At the outset, a program should be undertaken to evaluate current capabilities and knowledge which exist within the various agencies of the Federal establishment, international organizations, academic institutions, and private industry. It may well be that technology already exists for this purpose and only needs to be directed to the proper agencies for exploitation. At the very least, such information would be of considerable value to law enforcement programs at all levels and even to external groups such as those engaged in medical research.

I would do this committee a serious injustice to suggest that a simple, foolproof detection device is just around the corner. Rather, it seems likely that progress will be made in orderly steps which ultimately will provide effective deterrents to the illicit traffic. I urge this committee to provide support and encouragement to such a program.

Chairman PEPPER. Will Dr. Frances Gearing please come forward?

The committee is pleased to welcome now Dr. Frances Gearing. In addition to her medical degree, Dr. Gearing holds a master of public health degree from the Columbia University School of Public Health and Administrative Medicine.

Since 1957, Dr. Gearing has been associated with the Columbia University School of Public Health and Administrative Medicine, where she now holds the rank of associate professor of epidemiology.

Since 1967, Dr. Gearing has served on the New York State Narcotics Commission's advisory committee on criteria for funding narcotics treatment programs. This year, she was appointed a member of the professional advisory committee on heroin addiction of the District of Columbia Department of Human Resources.

Since 1965, Dr. Gearing has been director of the evaluation unit for methadone maintenance treatment program for heroin addiction, in which position she has supervised a comprehensive study of the efficacy of methadone maintenance and its relationship to crime control.

Dr. Gearing, we welcome your testimony on this matter of critical importance.

Mr. Perito, will you inquire?

Mr. PERITO. Dr. Gearing, we understand that you have conducted several studies on the relationship between the use of the methadone modality treatment approach and the decrease in crime by addicts under such treatment; is that correct?

STATEMENT OF DR. FRANCES R. GEARING, ASSOCIATE PROFESSOR, DIVISION OF EPIDEMIOLOGY, COLUMBIA UNIVERSITY SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

Dr. GEARING. Yes.

Mr. PERITO. I wonder if you could review for the committee the approach that you took and the type of studies that have been finalized by you or under your direction.

Dr. GEARING. Well, for the record, it is all one study. It is a continuing ongoing evaluation.

We have looked at it in several ways. First of all, we did before-and-after pictures of what has happened to the patients who have been admitted to the program, looking at their previous criminal records and comparing this with what has happened to them since they have been in the program.

Our latest review would say that you could almost look at methadone as some kind of a vaccine against crime and look at it in a vaccine efficacy-type model and in that light we would say that methadone maintenance patients have a decrease in their criminality in the first year of 81.5 percent; in the second it is about 92 percent; in the third year, 96 percent; and for those who stay in the fourth year, it comes close to 99 percent. That is using the same patients' previous criminality records as a basis for comparison.

We have also studied a group of addicts who have been admitted to the detoxification unit at Morris Burns Institute in New York City. This is a short-term drying out process where they remain in the facility for approximately 2 weeks, getting decreasing doses of methadone.

We matched these people with patients in the study population and looked at their criminal records prior to time of admission in detoxification and what has happened to them subsequently.

The contrast is rather striking. The detoxification does not prevent crime. Their records, since under our observation, are no different than they were prior to admission for detoxification.

Mr. Perito. Dr. Gearing, how large a sampling did you use? Did you use the entire group when you did this profile analysis that you gave us from 81.5 to 99 percent?

Dr. Gearing. The figures I gave you of the 4 years would be the first 1,000 patients admitted to the program. I have another figure for the first 600 patients who were admitted on an ambulatory basis. The figures are roughly similar.

Mr. Perito. The first 1,000 patients, I take it, those were not all ambulatory patients?

Dr. Gearing. None of them were.

Mr. Perito. How long were the addicts confined for treatment?

Dr. Gearing. Six weeks.

Mr. Perito. Then released and come back on a periodic basis?

Dr. Gearing. No; they are released, then, to an ambulatory or outpatient clinic unit where they come in initially every day for their medication and gradually twice a week.

Mr. Perito. Did you personally secure the raw data or was it presented to you by people working in the program?

Dr. Gearing. No, sir; the majority of the data we secure ourselves. Our prime source is from the New York City narcotics register, as reported from the police.

However, the data that we get from the program would tend to show that it is very useful, too, because the patients do report to the program when they are arrested because legal counsel is available to them.

Mr. Perito. Did you take a sampling or did you do some personal interviews with each of these addicts to make a determination as to their rate, for example, of illegal activity which did not result in some type of criminal charges being lodged against them?

Dr. Gearing. No, sir.

Mr. Perito. Do you know of any study such as this in the United States where the addicts were interviewed as to their criminal activity as opposed to a pure evaluation of the process?

Dr. Gearing. No, sir. I think there is a group at Harvard that may be undertaking such a study in a patient population in New York.

Our charge was to obtain objective criteria for evaluation, and we tried to make it as objective as possible and find things that we could measure, and the things we could measure were arrests and incarcerations.

Mr. Perito. And your study of the New York program is ongoing; is that correct?

Dr. Gearing. Yes, sir.

Mr. Perito. I understand that you are also about to do an analysis and efficacy study of the Narcotics Treatment Administration in Washington; is that correct?

Dr. GEARING. I have been asked to consult with them and assist them and to set up some kind of ongoing evaluation for their program.

Mr. PERITO. Now, going back to your New York program, the statistics, the 81.5 to 99 percent, did those statistics only include the 1,000, or did the amount of patients in that study increase?

Dr. GEARING. No; they decreased because I started with 1,000 patients, the first 1,000 patients admitted. Not all of them have been in the program for 4 years because of the way the patients were admitted.

Mr. PERITO. What was, to the best of your knowledge, the dropout rate of the first 1,000 patients?

Dr. GEARING. The dropout rate is approximately 15 percent during the first year, about 5 percent in the second year, and about 2 percent a year for the ensuing years.

Mr. PERITO. Did your analysis also include an evaluation of their return to work or to school?

Dr. GEARING. Yes, sir.

Mr. PERITO. Could you tell us what those statistics show?

Dr. GEARING. The average employment percentage for patients entering the program during the early phases was approximately 25 percent.

Those who stayed in the program for 6 months, approximately 45 percent of them were employed.

Those who stayed in the program over a year, the percentage goes up to 55, and for those who have been in the program 5 years or longer, it is approximately 90 percent.

Of those who were admitted initially on an ambulatory basis because of the selective process by which they tested the ambulatory procedure, a higher percentage of them were employed or in school at the time of admission.

So that their rate of increase of employment is not as great.

However, it levels off to approximately the same figure at 18 months.

Mr. PERITO. Dr. Gearing, did you ever have occasion to do a comparative study of the drug-free approach in New York?

Dr. GEARING. Did I ever have occasion to?

Mr. PERITO. Yes.

Dr. GEARING. I offered my services. They were not accepted.

Mr. PERITO. Do you know of any studies done similar to the studies which you did on the methadone programs in New York of drug-free programs anywhere in the United States?

Dr. GEARING. I wish I did.

Mr. PERITO. To the best of your knowledge, those studies do not exist?

Dr. GEARING. That is correct.

Mr. PERITO. Dr. Gearing, you have presented us, kindly, with a paper which you presented to the Third National Conference on Methadone Treatment on Saturday, November 14, 1970?

Dr. GEARING. Yes, sir.

Mr. PERITO. And also a paper which you gave at Pontiac, Mich., on December 2, 1970, and these relate to your studies of the evaluation of the methadone maintenance approach; is that correct?

Dr. GEARING. Correct.

Mr. PERITO. Are these the two latest studies which you have done?

Dr. Gearing. Yes, sir; I would not consider the position paper a study. That was a lawyer's confrontation for which I wrote a position paper.

Mr. Perito. Mr. Chairman, I would at this point ask that these two papers be incorporated in the record.

Chairman Pepper. Without objection, they will be admitted for the record.

(The documents referred to above appear at the end of Dr. Gearing's testimony.)

Chairman Pepper. Just one question before we proceed.

Is it your conclusion, therefore, Dr. Gearing, from the studies that you have made over a period of time that methadone is the best treatment now known and now available for heroin addiction?

Dr. Gearing. I wouldn't make quite that strong a statement, Mr. Pepper. I would say that for those patients who volunteered for the methadone maintenance treatment program who have a history of long-term heroin addiction, this is the best treatment we have at the moment; yes.

Chairman Pepper. And you did find a striking diminution in the amount of crime committed by the people who took methadone who previously had a heroin addiction?

Dr. Gearing. Yes, sir. These were patients who by definition, to get into the program, have had to be known as "criminal addicts." They had to have had previous infractions of the law.

Chairman Pepper. Have you had long enough experience with these people who took methadone to determine whether it became addictive with them.

Dr. Gearing. I am not sure the patients who have been on the program a long time consider themselves addicted. They consider themselves dependent, and happily dependent because it has freed them from the problems they had when they were chasing heroin.

Chairman Pepper. Did you find the people who took methadone over a period of time have suffered any apparent trouble or physical injury?

Dr. Gearing. As far as we can determine, from serial medication examinations, and the patients in the program 5 years or longer have been monitored carefully, there seems to be no physical or physiological problems.

Chairman Pepper. Yesterday, we had some distinguished witnesses here who said that they did not think that private physicians should be authorized to prescribe methadone.

What is your recommendation on that?

Dr. Gearing. If you will look at the recommendations that the advisory committee and I put together at the end of that last report, we make the same recommendation, that it is not for use of the physician in his private office, because methadone, in and of itself, is only really a bridge which allows the patients time to get involved in their own rehabilitation.

The big need, for many of them, is to gain extra skills, to find a job, and many other social services.

Chairman Pepper. Mr. Blommer, do you have any questions?

Mr. Blommer. Yes.

Doctor, on page 3 of the paper that you have kindly given us, you show the reasons for discharge from the program as being alcohol abuse and abuse of other drugs. Now, these figures are relatively small.

What standards are applied to the people in the program that could lead to their being discharged?

Dr. Gearing. Every effort is made in the program to help them with their problems. It is continual abuse, and inability to handle their other problems, that may lead to discharge.

But there are supportive services. In fact, particularly in the Harlem area, working on the alcohol problem they have one full-time person. And many of the patients do very well.

Mr. Blommer. Doctor, would it be a fair statement to say that merely because someone is abusing the program, and by that I mean not just taking methadone, but also taking alcohol, taking amphetamines, that this abuse would not be grounds enough to drop them from your program?

Dr. Gearing. That is correct. I think initially they were dropped from the program for two reasons:

One was the program was not equipped to handle these problems; and second, there was such a long list of patients waiting to get into the program; the waiting time had become so long that the decision on the part of the program people was, "How to do the best job for the greatest number," and if some patients weren't making it then it was better to substitute somebody else. I think that was the philosophy as I understood it.

Mr. Blommer. In any case, Doctor, if someone has a job, would you say they would most likely be retained in the program, that job being an indication they were adjusting?

Dr. Gearing. Someone has a job, even though he may be abusing drugs or alcohol; definitely.

Mr. Blommer. So that your statistics of people having a job benefits your program?

Dr. Gearing. It is not my program, sir.

Mr. Blommer. Excuse me. The program that you evaluate. The chart seems to go up, showing that more and more people have jobs, and the sampling goes down.

Dr. Gearing. It is not the sampling. Remember, patients are being admitted all the time. So that at any point in time you have so many patients in the program only 2 weeks or 3 months. For instance, when I started evaluating the program there were 66 patients in the program. Forty-five of those patients are still in the program, but those are the only ones on whom I can say I have a 5-year followup, because that is all the patients who had been admitted at that time.

Mr. Blomer. In other words, there are fewer and fewer patients that meet the criteria; is that correct?

Dr. Gearing. No; the program started 5 years ago with 66 patients. That is all the 5-year followup patients I could possibly have, ever: right?

Mr. Blommer. I see.

Dr. Gearing. Now, in the 4-year followup we have a smaller number and right now, if I were doing a 3-month followup, I would have something in the neighborhood of 6,000 patients. That is the rate at which admissions are being taken on now.

Mr. BLOMMER. Let me switch topics, Doctor.

Is anyone in the Dole-Nyswander program receiving methadone maintenance but no therapeutic services?

Dr. GEARING. There is a small group that was started last July.

Mr. BLOMMER. Have you any statistics on whether they are able to stay out of trouble and keep jobs?

Dr. GEARING. I have a very short followup on them.

Mr. BLOMMER. Is there any trend emerging?

Dr. GEARING. Yes; the dropout rate is somewhat higher. Their arrest record is about the same, and their rate of obtaining new employment is slightly lower.

Mr. BLOMMER. The same as the ones who are receiving therapy?

Dr. GEARING. That is on the first 100 patients.

Mr. BLOMMER. Would it be a fair statement to say that the trend, then, is away from therapy as opposed to more therapy?

Dr. GEARING. No; I would say the trend is an attempt to select out of a group of patients who need the additional supportive services and concentrate the supportive services on those who need them the most, or start with supportive services for patients who seem to need it and gradually put them into a less-structured program.

Mr. BLOMMER. I have no further questions, Mr. Chairman.

Chairman PEPPER. Mr. Waldie?

Mr. WALDIE. No questions.

Chairman PEPPER. Mr. Wiggins?

Mr. WIGGINS. Yes, Mr. Chairman.

Doctor, what is the proper name for this program to which we have referred in general terms?

Dr. GEARING. It was originally known as the Dole-Nyswander program; later on known as the Beth Israel program; now the Methadone Treatment Program in New York City and Westchester County, because it now encompasses, in addition to those units I have mentioned, another unit in the Bronx and the New York City program which started the first of November.

Mr. WIGGINS. Who is the director of the program?

Dr. GEARING. Dr. Harvey Gollance would be the director of those portions that come under what is now called the Beth Israel program.

Mr. WIGGINS. How do you spell his name?

Dr. GEARING. G-o-l-l-a-n-c-e, and Dr. Robert Newman is the director of the New York City program and Dr. Edward Gordon is the director of the Westchester program.

Mr. WIGGINS. Is this a private program or a Government program?

Dr. GEARING. Beg pardon?

Mr. WIGGINS. Is this a private program or a Government program?

Dr. GEARING. It is a program, with one small minor exception, supported by the State of New York Narcotics Addiction Control Commission.

Mr. WIGGINS. So far as you know, are there any direct Federal grants involved in the program?

Dr. GEARING. As far as I know, except for perhaps some laboratory research at Rockefeller University, there is no Federal money in this program.

Mr. Wiggins. How does a patient qualify for the program, Doctor?

Dr. Gearing. Well, that is a little bit out of my field, but a patient applies for admission. He is screened and he has to meet certain criteria.

Mr. Wiggins. Would it be accurate to say that all of the patients are voluntary?

Dr. Gearing. Absolutely. In fact, they have to sign a voluntary commitment to take the medication.

Mr. Wiggins. Is there a method, so far as you know, of course in the State of New York, whereby courts may compel attendance to methadone programs as a condition to probation, for example?

Dr. Gearing. Compel?

Mr. Wiggins. Yes, ma'am.

Dr. Gearing. No; I think they can give the patient the option of taking methadone or going into one of the other nonmedication programs.

Mr. Wiggins. Have you had any experience in evaluating other programs in which you might give us some guidance concerning the wisdom of compulsory methadone programs.

Dr. Gearing. No; I sort of shudder at the thought of compulsory treatment programs. I would think that voluntary treatment programs in prisons might be useful.

I think to legislate medication goes against my physician's blood.

Mr. Wiggins. Yes, ma'am.

You describe in your prepared statement certain security techniques that are employed to insure that your patients are not using the program to satisfy their own drug needs. How is this information authenticated?

More specifically, let us suppose that a patient qualified, how do you know that he is not also continuing to feed his heroin addiction on the street?

Dr. Gearing. Well, he is periodically tested with urine samples.

Initially, he has a urine sample taken every time he comes in. While the patients are being built up to their tolerance dose, many of them do shoot heroin, there is no question about it.

Mr. Wiggins. Will a urine sample detect the presence of heroin?

Dr. Gearing. No; it will detect the breakdown products, morphine, and also since we in New York still cut it with quinine, it also detects quinine.

Mr. Wiggins. In that event you can still tell whether a patient is continuing to feed his heroin addiction by shooting heroin from the street?

Dr. Gearing. Yes.

Mr. Wiggins. How about the other drugs?

Dr. Gearing. This is really a program-type question. I happen to know something about it, but this is not really my field.

The other drugs, amphetamines, barbiturates, methadone, and cocaine, can be detected in urine. Marihuana and alcohol; no.

Mr. Wiggins. Let's suppose a patient signs up for and qualifies for a program in New York City and he also tries to sign up and qualify for another program to get a double dosage. How is that prevented?

Dr. Gearing. We are attempting to prevent this in that we have what is known as a data bank where each patient that applies for a program is put into the machinery and matched by his first name, last name, and his mother's maiden name, which seems to be more useful than the birth date, to prevent this kind of duplication.

So far, I think two have been picked up.

Mr. WIGGINS. If a person just simply used a different name, would he be detected?

Dr. GEARING. No. What purpose would be served by a patient going to more than one program?

Mr. WIGGINS. Well, I don't know, Doctor. Maybe you can help me.

Dr. GEARING. Because he takes his medication daily. He takes his medication at the clinic. He is giving no medication to take home.

Mr. WIGGINS. I understand that. Would a person who is dependent upon methadone and had a prior history of heroin addiction, get a greater euphoric effect, or whatever the impact may be, from a second dose of methadone than he would from just one?

Dr. GEARING. You will have to ask the patients. I don't know. I know the experience with the majority of the patients who have been in the program for some months, many of them ask to have their dosages cut down. They do not develop a tolerance like with heroin where they have to get increasing dosage. At the stabilizing dose, somewhere between 80 and 120 milligrams a day, they don't appear to crave more.

Mr. WIGGINS. Is that conclusion generally held in the medical community; namely, that a stabilizing tolerance is achieved with methadone programs, unlike other analgesic substances?

Dr. GEARING. I don't think there is anything about the drug addiction field that is universally held in the medical profession.

Mr. WIGGINS. Do you have any comment about that? Have your colleagues, so far as you know, come to a contrary conclusion?

Dr. GEARING. None who work for the program; no.

Mr. WIGGINS. Doctor, I gather that there is some diversion in methadone and that it can be obtained occasionally on the street. What do you believe is the source of that diversion?

Dr. GEARING. In New York City the source of that diversion is almost exclusively the private-practice physician who, in being kind to his patient, gives him not one dose but several doses, such as a prescription for several doses or a week's supply.

Mr. WIGGINS. Do you have any recommendations to this committee on how that problem might be curtailed?

Dr. GEARING. I think my recommendation is that I wish that physicians were not giving it in their private offices, but apparently that is being done.

Mr. WIGGINS. Will it be your recommendation that the private dispensing of methadone outside of a control clinic be banned entirely?

Dr. GEARING. No; the recommendation is that those physicians who are interested in working with drug addicts in methadone maintenance affiliate themselves with some kind of an ongoing program and that as the patients become stabilized and no longer need the supportive services of a total program that the private sector could then take on the patient.

Mr. WIGGINS. Doctor, so far the witnesses agree that methadone is a dangerous addicting narcotic, and I am sure you agree with that statement.

Dr. GEARING. Yes.

Mr. WIGGINS. Is it more difficult to withdraw a patient addicted to methadone than it is a patient addicted to heroin?

Dr. GEARING. No; I think it takes a little bit longer, because the methadone that they are getting when they are on methadone maintenance is pretty good stuff. The heroin that they are getting on the street is not such good stuff.

Mr. WIGGINS. I am going to use a term that may not be appropriate. I am going to use the term "euphoria." That may not be truly descriptive of the effect on the human body, but you use the appropriate term.

What is the difference in the euphoric effect between the use of heroin and the use of methadone?

Dr. GEARING. The difference is primarily in the mode in which it is given. If methadone is injected euphoria is obtained. Methadone given by mouth, the euphoria, as I understand, it does not occur.

Heroin given by mouth doesn't do anything.

Mr. WIGGINS. Methadone is an antagonistic drug; isn't it?

Dr. GEARING. No; it is known as a block.

Mr. WIGGINS. Yes; but it is not antagonistic.

What satisfies the psychic craving for the euphoric effect if they don't get it on the methodone maintenance program?

Dr. GEARING. My judgment would be that the heroin addict has two phases. He has a euphoric phase. He also has a fear of withdrawal phase. I think that this stabilization seems to block that craving. I can't answer that any further because I don't know.

Mr. WIGGINS. Have you observed that there is abuse by shooting methadone on the streets of New York, for example?

Dr. GEARING. Very little.

Mr. WIGGINS. Is it more dangerous if applied intravenously?

Dr. GEARING. The methadone that is used in the methadone maintenance program is theoretically noninjective.

Mr. WIGGINS. That is all I have, Mr. Chairman.

Chairman PEPPER. Mr. Waldie?

Mr. WALDIE. No questions.

Chairman PEPPER. Mr. Brasco?

Mr. BRASCO. Yes.

Dr. Gearing, I understood you to say before—correct me if I am wrong—that the methadone detoxification program as measured in relationship to criminality was not as successful——

Dr. GEARING. I didn't talk about the methadone detoxification program. I talked to about 100 patients that we selected out of the detoxification program by virtue of the fact that they matched by age and by ethnic group and time of admission to detoxification unit the patients in the methadone maintenance program, and we followed this.

Mr. BRASCO. May I ask you this, Doctor? In connection with the methadone maintenance program; is there anything within the confines of the program itself that leads toward the eventual withdrawal of all drugs?

Dr. GEARING. There is no plan in the program for a time when a patient shall be withdrawn from methadone; is that what you mean?

Mr. BRASCO. Yes.

Dr. GEARING. Many of the patients ask to be withdrawn with the notion that they think they can make it on their own, and they are withdrawn and then they are given the privilege of returning. I think you have some data there that shows that a goodly portion of them do return.

Mr. BRASCO. They do return?

Dr. GEARING. Although a small proportion of them go into abstinence programs.

Mr. BRASCO. In connection with dispensing of methadone, I understood you to say that initially the patients took their dosage at the institution where they entered the program and later on they come twice a week.

Dr. GEARING. Some of them come twice a week. Some of them never get beyond the every day. This depends upon a good many things, including their own rehabilitation.

Mr. BRASCO. I take it those who come twice a week——

Dr. GEARING. Yes; in a locked box.

Mr. BRASCO. No; I wasn't trying to be—I personally agree with your first statement. Maybe I should have said that first, that this is probably the best we have to offer.

Dr. GEARING. At the present time.

Mr. BRASCO. What I was trying to do was to get some answers from you. The program has been from time to time, as you know, criticized. One of the things is the incidence of death. I heard some statistics—I am not saying it is true, I am just saying——

Dr. GEARING. That is from what, by whom?

Mr. BRASCO. Where did we get the statistic, Paul, with respect to the deaths?

Mr. STEIGER. In children.

Dr. GEARING. Death in children, three.

Mr. STEIGER. Six.

Dr. GEARING. Is it six now? In New York City?

Mr. STEIGER. Here, in Washington, D.C.

Mr. BRASCO. In any event, is there any reason why we couldn't have all of the people in the program report every day for their dose?

Dr. GEARING. It impairs the rehabilitation of the patient. In trying to be fair to a patient you would like to give him some freedom as he stabilizes and becomes a productive citizen.

Therefore, this is actually the one punitive measure that is used in a program, and that is if a patient begins getting into trouble or acting up or abusing other drugs they are put back to having to come in every day.

At the moment, they are all given weekend medication to take home.

Mr. BRASCO. Just one last question in connection with Mr. Wiggins' line of questioning concerning the fact that some of the methadone was getting into the streets of New York. That must be measured with the severe limitations that there are in connection with the program.

I had a young man come to my office several weeks ago, and it took me a day and a half, calling all over the place, trying to find a spot for him.

In any event, I kind of suspect that if the program was developed in large cities in the way that you described——

Dr. GEARING. The program is expanding astronomically.

Mr. BRASCO (continuing). There would never been any need for it being dispensed by anyone else.

Dr. GEARING. The New York City program, which started on November 1, was wondering where they were going to get their patients. They now have a waiting list of over 1,000 patients. They have 3,000 who may be accepted, and money for 2,000, and the other 1,000 will be waiting.

Mr. BRASCO. The question really is: In New York there are monetary limitations?

Dr. GEARING. It is monetary limitations and staffing.

Mr. BRASCO. And staffing?

Dr. GEARING. Yes; and also finding locations which will accept a narcotic treatment program in the area. Not every area of New York City, as you may know, enjoys the idea of having a methadone maintenance treatment program on their block.

Mr. BRASCO. Unfortunately, I do know something about that.

Might we integrate that with a hospital service? Might that help cut down on that problem? In other words, use a portion of a hospital?

Dr. GEARING. This has been done at Delafield and the Washington Heights Center. There are two units in the Washington Heights Health Center and one in the Delafield Hospital.

Mr. BRASCO. Thank you.

Chairman PEPPER. Mr. Steiger.

Mr. STEIGER. Thank you. I was very interested, Doctor, in Mr. Wiggins' approach on the possibility of the patient continuing his heroin habit undetected. The urine analysis is the only method that this program uses to detect the heroin?

Dr. GEARING. It is the only method there is, as far as I know, and it only detects heroin taken within the last 24 hours.

Mr. STEIGER. I assume they use interviews also; I mean, they ask them?

Dr. GEARING. The patients squeal on each other.

Mr. STEIGER. What is the incentive to squeal?

Dr. GEARING. Pride in the program.

Mr. STEIGER. Is there any method you know of, of beating the test, beating the urine analysis?

Dr. GEARING. Oh, I am sure there is. The urine analysis is not used in the punitive sense. It is used primarily for counseling. They don't shake their finger and say "You have been a bad boy."

Mr. STEIGER. An addict who was continuing a heroin habit and had the desire, he could conceivably continue it and stay in the program undetected?

Dr. GEARING. I wouldn't say undetected; no. There have been, I think, something like 1 percent of the patients who have been dropped from the program for continual shooting of heroin after they were reaching—supposedly—a stabilizing dose. The theory here is that in these patients this treatment doesn't work, obviously.

Mr. STEIGER. The ingenuity of the addict is fairly well known. He will do a great many things to achieve—to acquire— the drug and use it. It occurs to me that maybe we, as an interested congressional committee, might want to explore possibly a more efficacious test. This would be my only concern, because we have had reports of urine analysis, the methods of beating urine analysis itself, some very ingenious methods. It occurs to me it might be worth while to explore a better test.

Dr. GEARING. It depends on what you are concentrating on. Are you concerned about the urine or the patient? I really don't know what difference the urine makes if he has become a productive citizen and is able to function and is staying out of jail, because I suspect that in certain groups of the population, we could test for a variety of drugs and find habitual users, even among such illustrious people as among our Congress.

Mr. WIGGINS. Users of what?

Dr. GEARING. Drugs, amphetamines, barbiturates, tranquilizers, pep-up pills, et cetera.

Mr. WIGGINS. I just didn't want you to be misunderstood as accusing Members of Congress shooting heroin.

Dr. GEARING. No. I think in a rehabilitation program of this kind one can get overly hung up on urine testing, which is a very expensive and time-consuming part of the operation. I think it is very good from a counseling standpoint to let the patient know that big brother is watching him, but as far as handling the patient and his problem, it is not his urine you are concerned about.

Mr. STEIGER. The whole problem, it seems to me, the basic objection to the problem in terms of laymen is we are substituting one dependence for another, and in this instance we may not even be doing that. We may simply be mitigating the original dependence.

I would like to ask one question: On urine analysis, have you been able to get a statistically representative group of people who have been through the program for a given period, whatever that may be, and now no longer take methadone and are no longer addictive and are productive? Are there any figures like that?

Dr. GEARING. We are in the process of trying to find those people. They can find those who haven't made it. That is the easiest thing, because we can find them through our other reporter services.

We have a group of some 20 percent of the patients who have left the program that we haven't been able to find through these sources. We are now in the process of trying to find out what proportion of these people are, in fact, drug free.

Mr. STEIGER. My question is: In your opinion is it possible for somebody, through the methadone maintenance program, to achieve independence from methadone and anything else, or do we have to anticipate that he will be a methadone addict for the rest of his life?

Dr. GEARING. From the information I have at the present time I would equate methadone maintenance with insulin for diabetics, as probably a lifelong commitment for many of the patients.

Chairman PEPPER. Mr. Mann.

Mr. MANN. Doctor, in your evaluation, what employment problems or patterns do you find these people having and is the community prejudiced or reluctant to employ these people?

Dr. GEARING. The answer to the last question is yes, in some areas. The experience that has come about in the program is that it is like getting the first olive out of the bottle. Getting the first man on methadone maintenance employed in a particular industry or group is the tough one. Once they have accepted the first one and they find out that he is a useful citizen, then getting other people into that is a simpler job. That is one point.

The main point, I think, is that many of them have to be given some kind of skill training in order to be employable above the welfare level, and this has taken some doing and is an active part of the program.

Does that answer your question?

Mr. MANN. Yes; thank you.

Can a person be on methadone and take a periodic heroin shot for the euphoric effect and incur no increased physical danger because of the combination of the two?

Dr. GEARING. I can't answer the question on physical danger. The answer from the standpoint of the patient is that many of them in the first few months that they are on methadone maintenance do shoot heroin and come back very angry because they spent their money on nothing, because they get no euphoria. That is supposedly the block of methadone, is that it blocks the effects of heroin.

Chairman PEPPER. We will take a short recess at this point.

(A brief recess was taken.)

Chairman PEPPER. The meeting will come to order, please.

Dr. Gearing, if I may interrupt before the other members return, I would just like to ask you three things:

One: We have had reports that about six people have died in the District of Columbia in the last few months from taking methadone. Have you any comment to make on that?

Dr. GEARING. I would defer that to Dr. DuPont in his testimony, because he has the knowledge. I have only read it in the newspapers.

Chairman PEPPER. Have you experienced deals from methadone in New York?

Dr. GEARING. Yes.

Chairman PEPPER. Roughly how many?

Dr. GEARING. Aside from the ones in children, which were accidentally taken thinking it was orange juice, I think that there may be two or three in the young teenagers.

Chairman PEPPER. In your experience, are the deaths generally in cases where they were not previously addicted to heroin and they just started right off taking methadone?

Dr. GEARING. They were not tolerant to the dose of methadone they were taking. Whether they were on other drugs or not, I don't know.

Chairman PEPPER. Does the taking of heroin give you a tolerance for methadone?

Dr. GEARING. I don't know.

Chairman PEPPER. Well, the deaths, you would say, are people who have not developed tolerance for methadone?

Dr. GEARING. That is correct.

Chairman PEPPER. Who are beginning to take it for the first time?

Dr. GEARING. Who just took it accidentally or just for kicks, just like many of the heroin deaths we have in New York City are not in addicted kids. They are in kids that are shooting for the first or second time and get either an allergic or some other kind of reaction, or a real overdose.

Chairman PEPPER. Do you agree with the testimony before this committee of Dr. Halpern of the city of New York, that any given dose of heroin, even to an addict, may be a fatal one?

Dr. GEARING. I certainly wouldn't contradict Dr. Halpern in a field in which he is an expert and I am not.

Chairman Pepper. Would you have any comment to make about the District of Columbia methadone maintenance program?

Dr. Gearing. Very few comments at the present time, because I have just recently started working with them. I think my first comment is on how rapidly it has grown and how well they were handling the problem of large numbers in any single unit.

On my first visit to D.C. Hospital I was overwhelmed with the size of their population, that they were handling with the staff that they had and their unit at that point was, I think, something in he neighborhood of 600 patients. In New York City, most of the outpatient units handle between 125 and 150 patients each.

Chairman Pepper. Do you have enough money and personnel and facilities for the treatment of all of the heroin addicts in the city of New York?

Dr. Gearing. Do I, sir?

Chairman Pepper. Yes. Are there available enough facilities and personnel?

Dr. Gearing. I am sure the answer to that is an unqualified no. I don't know if there is enough money in the world.

Chairman Pepper. Same situation all over the country?

Dr. Gearing. Yes.

Chairman Pepper. One other thing. Would you state what are the goals of the methadone maintenance program?

Dr. Gearing. Freedom from "heroin hunger," decrease in antisocial behavior, increase in social productivity, and recognition and willingness to accept help for other problems, such as alcohol abuse, other drugs, psychiatric and medical problems.

Chairman Pepper. Mr. Winn.

Mr. Winn. Thank you, Mr. Chairman.

Dr. Gearing, just a quick question. We heard yesterday in the testimony the difference between psychotic craving and physiological craving. What is the methadone reaction to these two cravings?

Dr. Gearing. The two psychiatrists who will follow me will probably be able to answer that question much better than I.

It would appear from the patients who are admitted to the methadone maintenance program in New York City that gross psychiatric problems are not a major portion of their problems. They have behavioral problems very similar to the behavior problems that some of the rest of us have, and need sometimes more help with those and psychiatric help is available both on an individual basis and group psychotherapy.

But it is not universally required.

Mr. Winn. The testimony yesterday was that they could go through all of these treatments, cold turkey and all of that, and still have a psychiatric craving, that even though they were supposedly cured, the psychiatric craving would drive them back to heroin.

Dr. Gearing. I am sorry, but I don't know what a psychiatric craving is, so I can't answer your question.

Mr. Winn. But you have heard the term?

Dr. Gearing. Yes.

Mr. Winn. Thank you very much.

Chairman Pepper. Sorry, Mr. Mann, had you finished your questioning?

Mr. MANN. I have one or two more, and I think perhaps I am in the psychiatric field, too, but not in the evaluation field.

Would a nonaddict enjoy the methadone program?

Dr. GEARING. Would a nonaddict? I wouldn't think so.

Mr. MANN. Well, it offers a lot of other benefits, other than mere——

Dr. GEARING. Not really; you have to take an awful lot of medication every day.

Mr. MANN. Could a nonaddict get into the program?

Dr. GEARING. It would be difficult.

Mr. MANN. This again is a question I perhaps shouldn't ask.

Does the existence of a methadone program perhaps lessen the stigma or lessen the resistance to one becoming involved in heroin in the first place?

Dr. GEARING. I have no idea but I would think not; no.

Mr. MANN. You would hope not?

Dr. GEARING. Yes.

Mr. MANN. You obviously have great faith in this program, and I am curious as to your major reaction, based on your evaluation as to the disadvantages, not in detail, but your major reaction to the disadvantages.

Dr. GEARING. The disadvantages have been well stated by many people. The first one is that it is an addictive drug that you are substituting for another one. This is not my major objection.

The second is it is a drug that has to be taken every day. It is our hope that at some point there will be developed a longer acting methadone kind of treatment.

I think the major objection to the program in New York City is the waiting time it takes to get into it, once the patient makes the decision that he wants to try it.

Mr. MANN. Thank you.

Thank you, Mr. Chairman.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. No questions.

Chairman PEPPER. Mr. Rangel?

Mr. RANGEL. Yes; Mr. Chairman.

Doctor, a lot of support is received by the methadone proponents because of the drastic decrease in crime. You presented, this morning, some rather dramatic statistics, and if I understand them correctly, you took a sampling of drug addicts and compared their records after having gone through the methadone treatment.

Dr. GEARING. Yes; using the same sources of information we use on patients in the program.

Mr. RANGEL. And using their past criminal records as an indication of how drastic the criminal activities were reduced.

Now, as a part of your program, I understand that you offer medical-psychiatric-social services, educational, job training, and all of this as a part of the methadone training program or methadone treatment program; is that correct?

Dr. GEARING. Those services are all available to the patient; yes, sir.

Mr. RANGEL. Assuming that all crimes are not comitted by addicts, that you had a group of people in central Harlem that have the same type of criminal record, and they were offered the same type of supportive services, of course, without the assistance of methadone, would it not be so that we could project a drastic decrease in their criminal activity, especially in view of the fact that many of these addicts are former addicts employed by the programs on which they are treated?

Dr. GEARING. I would hope that that were true, and I would like some data to show that it is true. The problem that we have had, is we have no comparative data, that is the reason we have to force a comparison group. We have no data from any group that has such a facility.

The only data we do have is in the detoxification unit. They do have a group where they have offered the services and they have not been terribly successful.

Mr. RANGEL. Notwithstanding all of this dramatic data and decrease in crime, you could not really determine whether or not the decrease was due to job training, consultant services, opportunities for employment, or methadone?

Dr. GEARING. That is correct. What we are saying is that this program offering this package in this way is doing this. That is all we can say.

Mr. RANGEL. Right.

Now, in answer to a previous question you were saying that it is possible for one to get a high, say, from methadone if not given orally.

Dr. GEARING. It is my understanding that methadone intravenously gives a very nice high.

Mr. RANGEL. Well, the drug which is presently being administered in New York, could that be reduced to liquid so that it could be given intravenously?

Dr. GEARING. As I understand it, it is very difficult. I was going to say it can't be done, but I was told today that it can, and knowing addicts who can shoot milk and a few things that some of the rest of us wouldn't dream of, they probably could shoot it; yes.

Mr. RANGEL. Well, being raised in that community and still living there, there is some thought we have now developed a type of methadone addict, and my real question was in view of the earlier question of dual registration or using different names, if you now believe, as I believe, that it is possible to be produced as to what is dispensed to a drug that can be injected into the body intravenously, then what is to prevent a community from becoming addicted to methadone as a first experience in view of the fact that the patient could give any name and give a different name and receive free drugs?

Dr. GEARING. I think this goes back to my suggestion that the dispensing of the drug is the key issue in this whole problem.

Mr. RANGEL. My question was one of registration. As I understood earlier——

Dr. GEARING. The patients do not get a week's supply of medication to sell on the street. The patient gets one dose that he takes on the premises.

Mr. RANGEL. What about the patients that you were saying come in twice a week?

Dr. GEARING. Well, those patients are not the source of the drugs on the street. Those are the patients who have been in the program for a good long time. They are not selling it.

Mr. RANGEL. What I am asking is: Is it possible for this patient to go to two or three different clinics and use two or three different names and receive two or three weekly dosages?

Dr. GEARING. If he went to a different place he would have to start all over again, because he would have to register as a new patient.

Mr. BRASCO. Would you yield for one moment?

Mr. RANGEL. Yes.

Mr. BRASCO. Dr. Gearing, I have heard, as Congressman Rangel has been trying to point out, that there is some traffic in the street with methadone, but what would be the value? This is something that escapes me. Why take the methadone if you don't get the euphoric effect that you want? Is there some other value?

Dr. GEARING. These are questions that I cannot answer. This is not my field. I know that there is methadone on the street, and I think I told you where we believe the major source of it comes from. In fact, it was highlighted in the New York Times the other day. I do not think that the majority of methadone on the street comes from the patients who are on methadone maintenance. This is a very valuable piece of equipment to the patients.

Mr. BRASCO. But you don't know, then, I take it, the answer to my question. Whether or not the use of methadone is the initial attraction as the use of heroin would be to an individual?

Dr. GEARING. I wish you would save those questions for Dr. Jaffe.

Mr. BRASCO. Thank you.

Mr. RANGEL. My last question is do you know of any reason why the Food and Drug Administration has not certified this drug?

Dr. GEARING. I think they are overly cautious, to put it mildly.

Chairman PEPPER. Any other questions?

Thank you very much, Dr. Gearing. We appreciate your valuable testimony this morning.

(The following material, previously referred to, was received for the record:)

[EXHIBIT NO. 10(a)]

SUCCESSES AND FAILURES IN METHADONE MAINTENANCE TREATMENT OF HEROIN ADDICTION IN NEW YORK CITY

(By Frances Rowe Gearing, M.D., M.P.H. (Supported under Contract No. C-35806 from New York State Narcotic Addiction Control Commission), Associate Professor, Division of Epidemiology Columbia University School for Public Health and Administrative Medicine, and Director, Methadone Maintenance Evaluation Unit)

For Presentation at Third National Conference on Methadone Treatment, Saturday, November 14, 1970, Park Sheraton Hotel, New York, N.Y.

INTRODUCTION

October 1 marks the fifth anniversary of the establishment of the methadone maintenance evaluation unit and the first meeting of the evaluation committee. When our unit began operations there were 66 men and eight women in the program and there were facilities available to admit approximately seven new patients each month. As time has marched on, the progress reports from our Evaluation Unit have attempted to monitor the progress of the program with cautious optimism, with the result that we have been quoted and misquoted by legislators at all levels of government and by all the mass media.

Our recommendation for continued expansion of the program has resulted in a veritable population explosion in the past year. As of October 31, 1969, the methadone maintenance treatment programs under our surveillance included six inpatient induction units, and ambulatory induction was just beginning. The admission rate was approximately 50 patients each month, equally divided between ambulatory and inpatient induction with rather cautious selection of those admitted for ambulatory induction.

This year has seen an almost complete reversal in this procedure. The vast majority of patients are currently being stabilized on an ambulatory basis, and inpatient services are used only for those patients who present unusual problems.

As of October 31, 1970, we have under surveillance 13 inpatient induction units and 46 active outpatient and ambulatory units. These units cover the four largest New York City boroughs and lower Westchester County. How many patients are involved? Table 1 shows the October 31, 1970, census. There have been 4,376 admissions to date, and 3,485 patients are under treatment. This is contrasted with the census as of October 31, 1969, when there were 2,325 admissions and 1,886 patients in treatment. This highlights the rapid expansion from approximately 50 patients per month to a level of 50 new patients each week. The locations of the inpatient and outpatient units are listed in appendixes A and B for those who are interested. The rapid induction group is a relatively new unit, opened in late July 1970, to which a group of approximately 100 patients from the waiting list have been offered ambulatory induction to methadone maintenance with medication only and little or no supportive services at the outset. The success rate in this group is being followed with great interest because its initial objective is to delineate that portion of the accepted patients which can be maintained with only minimal supportive services.

DESCRIPTION OF SAMPLE

The age distribution of patients in the methadone maintenance treatment program has not changed substantially over the past 5 years despite the change in age criteria for admission. This appears to be the result of two balancing forces. These are (1) the inclusion of a few 18-year-old patients, and (2) the admission of a small number of oriental patients who are in their late 50's. Therefore, the median age of all patients remains at about 33.3 years with the average age of the black patients somewhat older (35.6).

The ethnic distribution remains approximately 40 percent white, 40 percent black, 19 percent Spanish and 1 percent oriental.

We will discuss the "failures" first.

RATE OF DISCHARGE

The rate of discharge by month of observation has demained amazingly stable despite the changes in admission criteria and the change of emphasis from inpatient induction to ambulatory induction. This is illustrated in figure 1 where the rates of discharge for the two groups are contrasted. The two curves are identical. The Van Etten group, which active tuberculosis as an additional problem to heroin addiction, demonstrate a somewhat accelerated discharge rate as might be expected.

In figure 2 we contrast three cohorts of 500 patients by date of admission, and once again we find no difference in rates of discharge among these three cohorts representing the first 1,500 patients admitted to the program.

Figure 3 contrasts the discharge rate for men and women. The slight difference shown is not significant due to the much smaller number of women. The rate of discharge for men by age at time of admission is shown in figure 4 and once again shows no difference between younger and older patients. A small difference appears in figure 5 between the rate of discharge in the third year between black and white patients. This difference is not statistically significant at this point but bears monitoring in the future.

REASONS FOR DISCHARGE

As shown in figure 6 problems with alcohol abuse as a reason for discharge increases with age at time of admission for both men and women, drug abuse (primarily amphetamines and barbiturates) as a reason for discharge decreases with age and is more common among the women than among the men. Voluntary withdrawal from the program increases with age particularly among the men.

Discharge for behavior or psychiatric reasons is more common among the younger patients of both sexes. Deaths follow the pattern in the general population.

When we look at reasons for discharge by ethnic group as shown in figure 7, we note that alcohol problems are more common among the black patients and drug abuse is more commonly a factor among the white and Spanish patients.

Voluntary withdrawals and discharge for behavioral reasons account for the majority of dropouts in the first year. Chronic problems with alcohol abuse, and continued drug abuse were the major causes of discharge in the second and third year.

FOLLOWUP OF DISCHARGED PATIENTS

With the assistance of two medical students, (Michael Lane, Downstate Medical School, and Mary Hartshorn, Medical College of Pennsylvania) during this past summer, we completed an intensive followup on a sample of patients who had left the program. We selected all patients who were discharged alive by December 31, 1969, and who had been in the program 3 months or longer at the time of discharge. This gave us a pool of 562 persons. We divided this group into two segments: (1) those who had left the program voluntarily, and (2) those who had been discharged from the program for cause.

Our primary source of followup was the New City Narcotics Register which receives reports from the police and correction agencies, hospitals, and treatment programs, and from private practitioners. Another very useful source was a series of interviews with patients who left the program and have subsequently been readmitted. This was a major contribution by the medical students.

For the sample of 281 patients on whom we could obtain 6 months of followup the results are shown in table 2.

Those patients who left the program voluntarily had a lower arrest and detoxification record, than the rest. They also had a larger proportion admitted to other treatment programs an one-third had been readmitted to the program, contrasted with only 6 percent of those discharged for cause. If one considers that no record found is roughly equivalent to remaining "clean," one-third of this group were still "clean" 6 months after leaving the program.

The same sampling procedure was followed for the 396 patients on whom we could obtain 12 months to followup. These results are shown in table 3. In this group only 21 percent would be considered still "clean." The readmission rate was somewhat lower (13 percent). Except for arrests and deaths those who left the program voluntarily are very similar to the other group.

Table 4 shows the results of the followup on our sample of 181 patients on which we had a followup of 1 year or more. Here the readmission rate is 22 percent and the proportion who appear to have remained "clean" is only 18 percent and the death rate reaches 5 percent.

These data would tend to indicate that, among those patients who withdraw from methadone maintenance treatment, only a small portion have been able to "make it" on their own.

Because of the tremendous current interest in "criminality" associated with addicition, we looked into the previous arrest records of those patients who have remained in the program, contrasted with those who left the program voluntarily, and those who were discharged for cause. We contrasted this, in a "before and after" picture, as shown in figure 3. It is interesting to note that the past history of those who were discharged for cause with reference to arrests is worse than either of the other two groups—and that their behavior following discharge is as poor or worse than before admission. Those who left voluntarily, demonstrate a short preiod of improvement but also tend to return to their previous arrest pattern. Those who remained in the program show a constant and accelerated decline in criminal behavior as measured by arrests.

Enough of failures. Now let's discuss successes.

CRITERIA FOR SUCCESS

The criteria established by our evaluation unit with the approval of the evaluation committee for measuring success of the program has resolved around four basic measures:

(1) Freedom from heroin "hunger" as measured by repeated, periodic "clean" urine specimens.

(2) Decrease in antisocial behavior as measured by arrest and/or incarceration (jail).

(3) Increase in social productivity as measured by employment and/or schooling or vocational training.

(4) Recognition of, and willingness to accept help for excessive use of alcohol, other drugs, or for psychiatric problems.

RESULTS

(1) Although many of the patients test the methadone "blockade" of heroin one or more times in the first few months, less than 1 percent have returned to regular heroin usage while under methadone maintenance treatment.

(2) Antisocial behavior as measured by arrests and incarcerations (jail) have been looked at in several ways. First, the percentage of arrests among patients in the program during the 3 years prior to admission was compared with the percentage of arrests of these same persons following admission. This "before and after" picture is also contrasted with the proportion of arrests in a contrast group of 100 men selected from the detoxification unit at Morris Bernstein Institute matched by age and ethnic group and followed in the same manner. The results are illustrated in figure 9. The arrest records of these two groups are quite similar for each year of observation prior to admission. Following admission to the program, the contrast is striking for each period of observation with the methadone maintenance patients showing a marked decrease in the percentage of patients arrested, and the contrast group showing a pattern very similar to the earlier period of observation.

We have also calculated the arrests per 100 patient-years of observation for the 3 years prior to admission in contrast to the arrests per 100 patient-years of observation after admission. We have compared these data using the same computations for the contrast group. The results are shown in table 5. These results would appear to indicate that remaining in the methadone maintenance program does indeed decrease antisocial behavior as measured by arrests or incarcerations.

(3) Increased social productivity can best be illustrated by the employment profiles shown in figures 10 and 11. There is a steady and rather marked increase in the employment rate with a corresponding decrease in the percentage of patients on welfare as time in the program increases. This is true both for the men and the women. These data include both ambulatory and inpatient induction groups. This accounts for the increased percentage of men employed at time of admission since this was one of the early criteria for admission to an ambulatory unit.

(4) Figure 12 is an attempt to illustrate stability of employment among patients remaining in the program as contrasted with their previous employment experience. The shaded area might be considered as a measure of their increased social productivity since admission to the program.

(5) Although chronic alcohol abuse continues to be a problem for approximately 8 percent of the patients (both men and women), and for some becomes the principal reason for discharge, a majority of these patients show continued improvement in their ability to handle their alcohol problem with the support and assistance of members of the program staff who recognize the problem, and, are willing and able to cope with it.

(6) Problems with chronic abuse of drugs such as barbiturates, amphetamines, and more recently cocaine are evident in approximately 10 percent of the patients. There again, for some, it has resulted in discharge from the program. For many others, the patients are able to function satisfactorily, with the assistance and support of members of the program staff.

CONCLUSIONS

On balance, the successes in the methadone maintenance treatment program far outweigh the failures. The rapid expansion of the program during the past year, and the change in emphasis to include primarily ambulatory induction under the expanded admission criteria does not appear to have made any noticeable change in the effectiveness of this treatment for those heroin addicts who have been accepted into the program. A majority of the patients have completed their schooling or increased their skills and have become self-supporting. Their pattern of arrests has decreased substantially. This is in sharp contrast to their own previous experience, as well as their current experience when compared with a matched group from the Detoxification unit, or when compared with those patients who have left the program. Less than 1 percent of the patients who have remained in the program have reverted to regular heroin use.

A small proportion of the patients (10 percent) persent continued evidence of drug abuse involving use of amphetamines, barbituarates, and cocaine, and another 8 percent demonstrate continued problems from chronic alcohol abuse. These two problems account for the majority of failures in rehabilitatin after the first 6 months.

Methadone maintenance as a treatment modality was never conceived as a "magic bullet" that would resolve all the problems of patients addicted to heroin. For this reason, we believe that any treatment program using methadone maintenance must be prepared to provide a broad variety of supportive services to deal with problems including mixed drug abuse, chronic alcoholism, psychiatric or behavioral problems, and a variety of social and medical problems.

Many questions continue to remain unanswered with reference to the role of methadone maintenance in the attack on the total problem of heroin addiction; nevertheless the data presented on the group of patients who have been admitted to this methadone maintenance treatment program continues to demonstrate that this program has been successful in the vast majority of its patients.

After a careful review of the data related to successes and failures over the past 5 years, the methadone maintenance evaluation committee has submitted the following recommendations as of Friday, November 6, 1970:

RECOMMENDATIONS

As a result of the continued encouraging results in the methadone maintenance treatment program through October 31, 1970, the methadone maintenance evaluation committee recommends:

(1) That there be continued financial support for the methadone maintenance treatment program to allow continued intake of new patients using admission criteria including a minimum age of 18 years and a history of a minimum of 2 years of addiction with care in selection of patients to prevent the possibiilty of addicting an individual to methadone who is not physiologically addicted to heroin.

(2) That there be continued evaluation of the long-term effectiveness of the methadone maintenance treatment program for the group stabilized on an inpatient basis, the group being stabilized on an ambulatory basis, and the group undergoing rapid induction.

(3) That new programs which plan to use methadone maintenance should include all eleemnts of the program including:

(*a*) Availability of adequate facilities for the collection of urine and laboratory facilities for frequent and accurate urine testing.

(*b*) Medical and phychiatric supervision.

(*c*) Backup hospitalization facilities.

(*d*) Adequate staff including vocational, social, and educational support and counseling.

(*e*) Rigid control of methods of dispensing methadone and number and size of doses given for self-administration in order to prevent diversion to illicit sale or possible intravenous use.

(*f*) Staff members of potential new programs planning to use methadone maintenance be trained in this technique in a medical center which has been shown to use methadone maintenance effectively.

4. That continued research is essential particularly with reference to:

(*a*) The role of methadone maintenance in the treatment of young heroin addicts (under 18).

(*b*) Developing programs using methadone maintenance in combination with other approaches to the treatment of heroin addiction.

Projects in these areas should be supported and encouraged, but must be considered new research studies, and should be subjected to the same surveillance, and independent evaluation as the current programs.

(5) That methadone maintenance not be considered at this time as a method of treatment suitable for use by the private medical practitioner in his office practice, because of the requirements for other program components including social rehabilitation and vocational guidance.

(6) That a pilot or demonstration project be developed involving the use of properly trained practicing physicians as an extension of an organized methadone maintenance treatment program to treat those patients whose needs for ancillary services are minimal. These patients should be continued under the supervision of the methadone maintenance treatment program for periodic evaluation and urine testing.

ACKNOWLEDGMENTS

1. The members of the methadone maintenance evaluation committee, both past and present with particular reference to Dr. Henry Brill, who has so aptly chaired that committee since its inception.

2. All the members of the methadone maintenance treatment program staff for their devotion to their job and for their cooperation whenever needed.

3. The staff of the Rockefeller Data Bank especially Dr. Alan Warner and Mrs. Ellen Smith for their willingness to make available to us, whenever requested, data which has been a crucial starting point of our evaluation.

4. Those medical students who have made substantial contributions to our efforts over the past 4 years.

5. The directors of the New York City Narcotics Register who have allowed us to use their data for validation and for followup. These listed in chronological order over the past 5 years are: Dr. Florence Kavaler, Mrs. Zili Amsel, Miss Joy Fishman, Mr. Sherman Patrick.

6. The diligence and devotion of my staff including: Mrs. Dina D'Amico, Mrs. Angela del Campo. Mrs. Frieda Karen, Miss Elaine Keane, Mrs. Dorothy Madden, Mrs. Ingel Mayer.

7. And last but not least to the New York State Narcotic Addiction Control Commission for funding our efforts.

TABLE 1.—METHADONE MAINTENANCE TREATMENT PROGRAM

	Census as of Oct. 31, 1970				Census as of Oct. 31, 1969			
	Number admissions	Number discharges	Percent discharges	Number in treatment Oct. 31, 1970	Number admissions	Number discharges	Percent discharges	Number in treatment Oct. 31, 1969
npatient induction:								
M.B.I. and others [1]	1, 506	452 (40)	30	1, 054	1, 222	315 (20)	26	907
Bronx State	342	59 (3)	17	283	144	17 (1)	12	127
Gracie Square	352	64 (3)	18	288	156	16 (1)	10	140
Van Etten	160	64 (5)	40	96	125	39 (2)	31	86
Westchester County [1]	64			64				
Total inpatient	2, 424	639 (51)	26	1, 785	1, 647	387 (24)	23	1, 260
Ambulatory:								
M.B.I. and others [2]	1, 579	204 (10)	13	1, 375	678	72 (2)	11	606
Rapid induction	103	10	10	93				
Van Etten	52	13 (1)	25	39				
Greenwich House	138	25 (1)	18	113				
Westchester County [2]	80			80				
Total ambulatory	1, 952	252 (12)	12	1, 700	678	72 (2)	11	606
Total	4, 376	891 (63)	20	3, 485	2, 325	459 (26)	20	1, 866

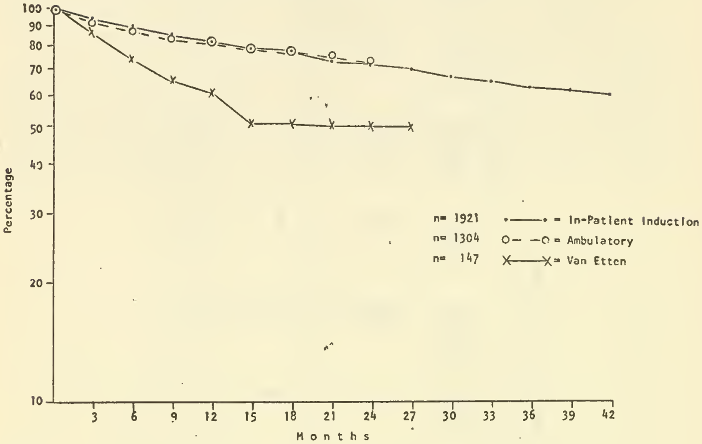
[1] See app. A.

[2] See app. B.

METHADONE MAINTENANCE TREATMENT PROGRAM

Figure 1

Rate of Discharge by Month for Patients Inducted on an Ambulatory Basis
Versus In-Patient Induction and Van Etten
as of June 30, 1970

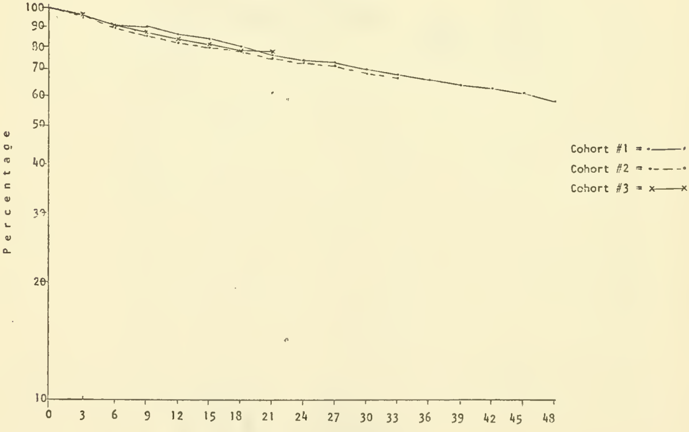


11/10/70

Methadone Maintenance Treatment Program

Figure 2

Rate of Discharge by Month for Three Successive Cohorts of 500 Patients
By Date of Admission

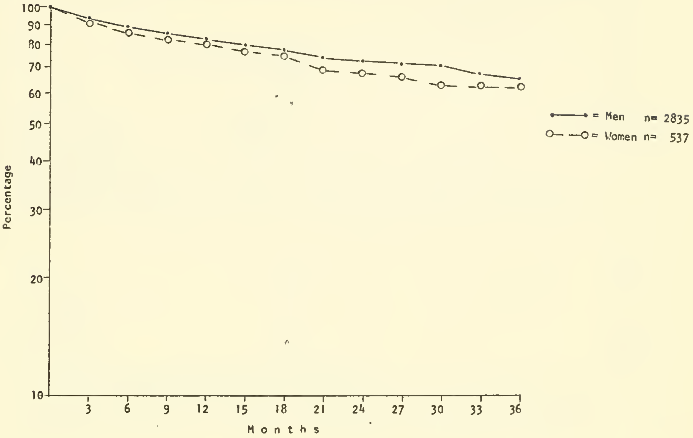


11/10/70

METHADONE MAINTENANCE TREATMENT PROGRAM

Figure 3

Rate of Discharge by Month for Men versus Women
as of June 30, 1970

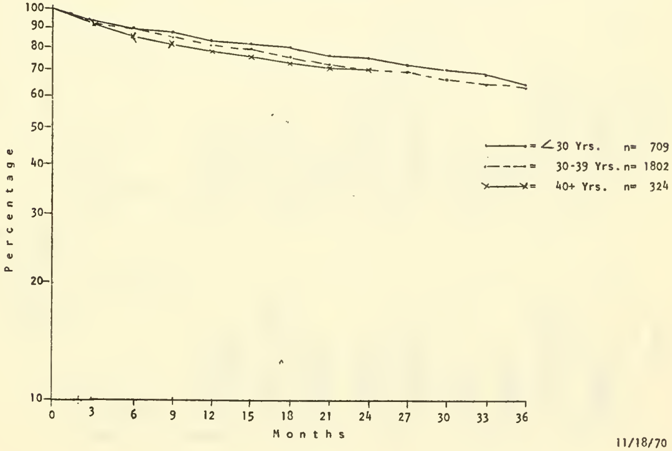


11/10/70

Methadone Maintenance Treatment Program

Figure 4

Rate of Discharge by Month for 2835 Men by Age at Time of Admission
as of June 30, 1970

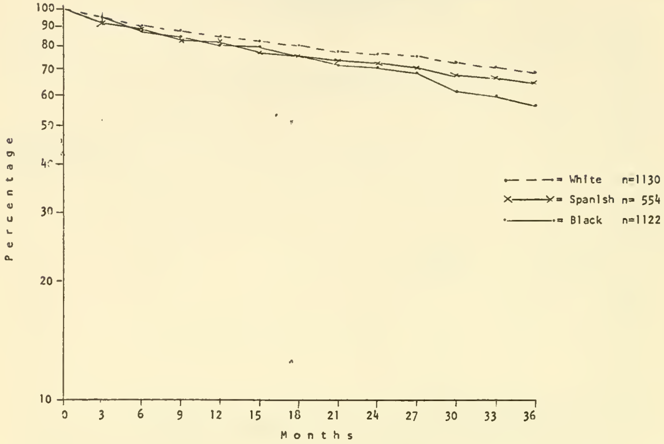


11/18/70

Methadone Maintenance Treatment Program

Figure 5

Rate of Discharge by Month for 2806 Men by Ethnic Group
as of June 30, 1970

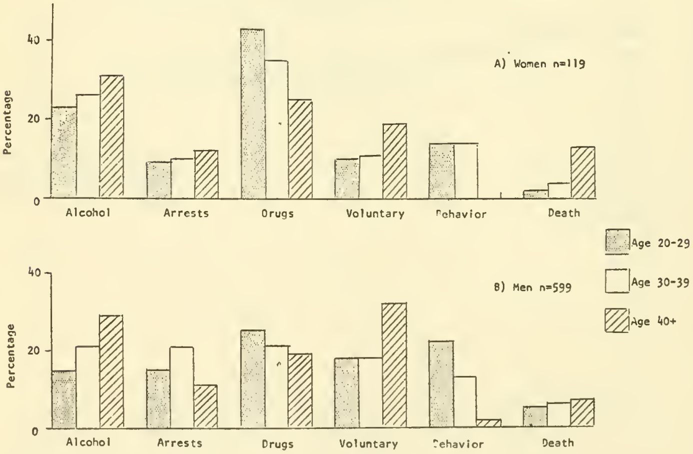


11/10/70

Figure 6

METHADONE MAINTENANCE TREATMENT PROGRAM

Percentage Distribution of Principal Reason for Discharge of 718 Patients by Age at Time of Admission

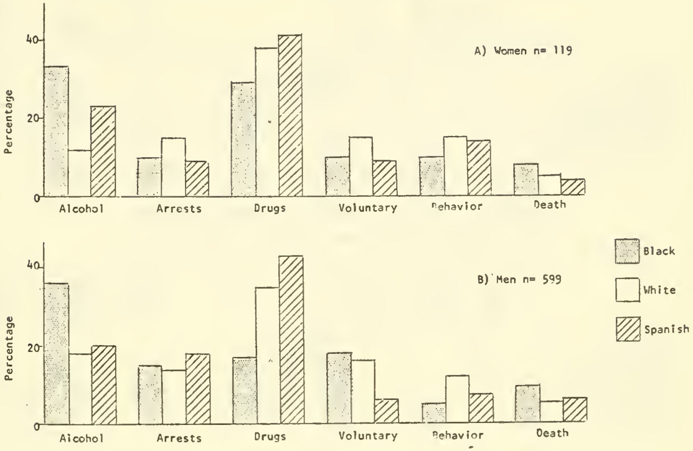


11/10/70

Figure 7

METHADONE MAINTENANCE TREATMENT PROGRAM

Percentage Distribution of Principal Reason for Discharge of 718 Patients by Ethnic Group



11/10/70

TABLE 2.—METHADONE MAINTENANCE TREATMENT PROGRAM

[Followup of 281 patients 6 months following discharge from M.M.T.P.; in percent]

	Left voluntarily	Discharged for cause	Total discharge
Arrest or jail	10	26	23
Dead	2	2	2
Detoxification	13	20	19
Other Rx program	11	4	7
Medical or psychiatric facility		3	2
Private medical doctor	2	2	2
Moved	7	1	1
Readmitted	33	6	11
No reports found	22	36	33
Total sample	45/100	236/100	281/100
Total N	90	472	562

TABLE 3.—METHADONE MAINTENANCE TREATMENT PROGRAM

[Followup of 198 patients up to 1 year after discharge from M.M.T.P.; in percent]

	Left voluntarily	Discharged for cause	Total discharge
Arrest or jail	13	28	25
Dead		2	2
Detoxification	34	23	25
Other Rx program	6	6	6
Medical or psychiatric facility	3	4	4
Private M D	3	1	2
Moved		2	2
Readmitted	16	13	13
No reports found	25	21	21
Total sample	32/100	166/100	198/100
Total N	64	232	396

TABLE 4.—METHADONE MAINTENANCE TREATMENT PROGRAM

[Followup of 181 patients 1 year or more after discharge from M.M.T.P.; in percent]

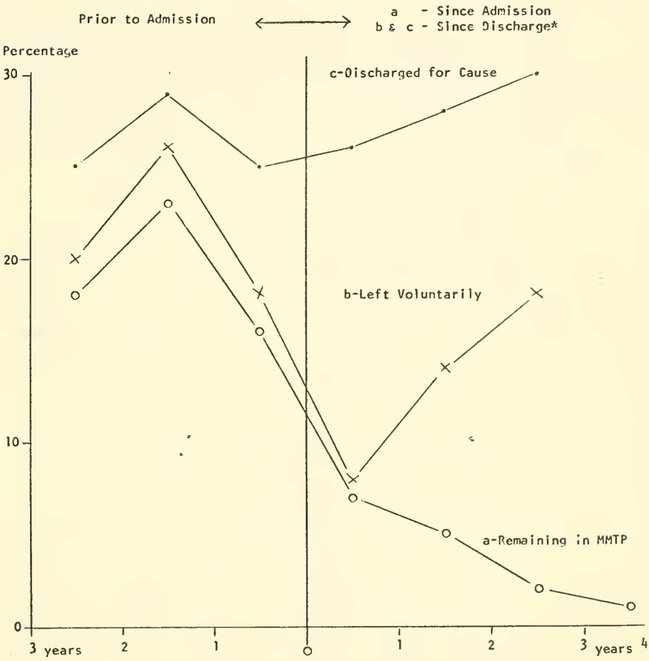
	Left voluntarily	Discharged for cause	Total discharge
Arrest or jail	18	30	28
Dead		5	5
Detoxification	37	27	28
Other Rx program	11	11	22
Medical or psychiatric facility	6	7	7
Private M.D	6	3	3
No reports found	21	17	18
Readmitted [1]	[1] 29	[1] 21	[1] 22
Total sample	28/100	153/100	181/100
Total N	56	306	362

[1] Readmitted patients each had 1 or more reports of arrest or detoxification.

Figure 8

METHADONE MAINTENANCE TREATMENT PROGRAM

Comparison of Arrest Records Among Persons
Continuing and Discharged from Methadone Maintenance Treatment Program



n MMP	(2560)	(2560)	(2560)	(2560)	(1544)	(788)	(384)
n Vol.Dis.	(45)	(45)	(45)	(45)	(32)	(28)	-
n Invol.Dis.	(236)	(236)	(236)	(236)	(166)	(153)	-

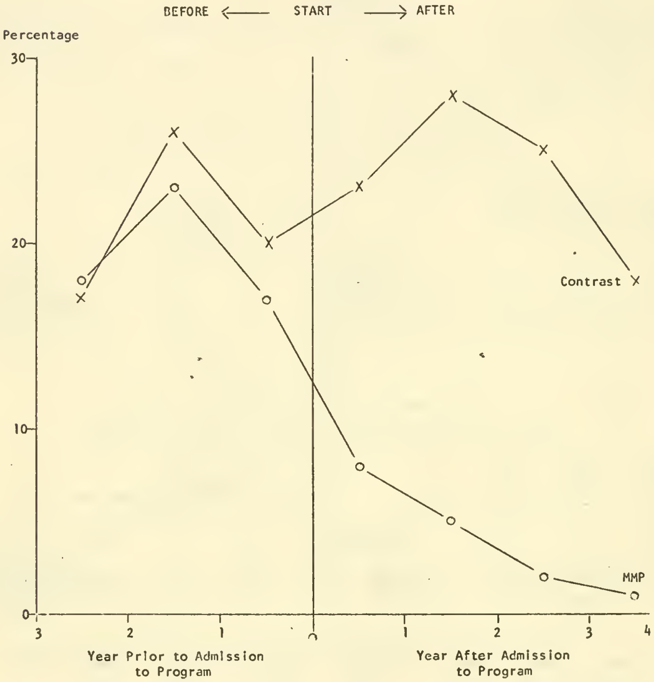
*All discharges had participated in MMTP for at least 90 days prior to discharge.

10/26/70

Figure 9

Methadone Maintenance Treatment Program

Percentage Distribution of Arrests for 2841 Men In Methadone Maintenance Program
Three Months or Longer as of March 31, 1979 and Contrast Group
By Months of Observation



n MMP	(2841)	(2841)	(2841)	(2841)	(1544)	(788)	(384)
n Contrast	(100)	(100)	(100)	(100)	(98)	(95)	(92)

11/10/79

TABLE 5.—METHADONE MAINTENANCE TREATMENT PROGRAM

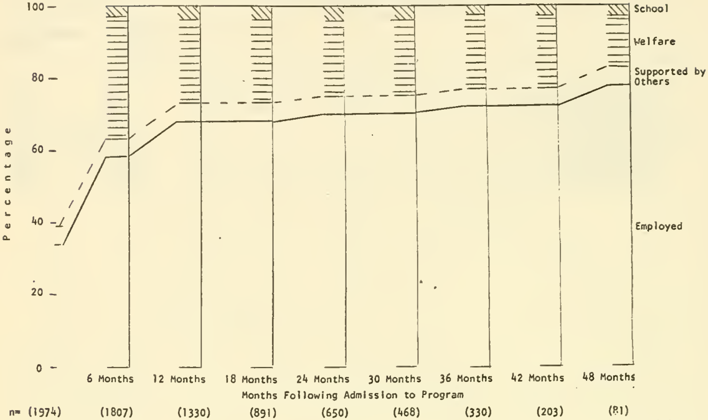
[The Number of Arrests and Incarcerations per 100 Person-Years for Methadone Maintenance Patients Before and After Admission Contrasted With Patients From Detoxification Unit]

	Methadone group	Detoxification group
Before admission:		
Arrests per 100 person-years	115	131
Jail per 100 person-years	49	52
N=person-years	17, 500	600
Following admission:		
Arrests per 100 person-years	4. 3	135
Jail per 100 person-years	1. 0	63
N=person-years	10, 800	1, 040

Methadone Maintenance Treatment Program

Figure 10

Employment Status and School Attendance for Men in Methadone Maintenance
Three Months or Longer as of March 31, 1970
(In-Patient and Ambulatory Induction)

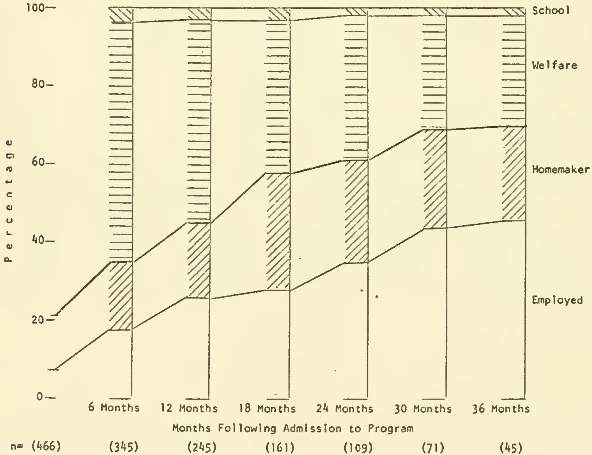


11/9/70

Methadone Maintenance Treatment Program

Figure 11

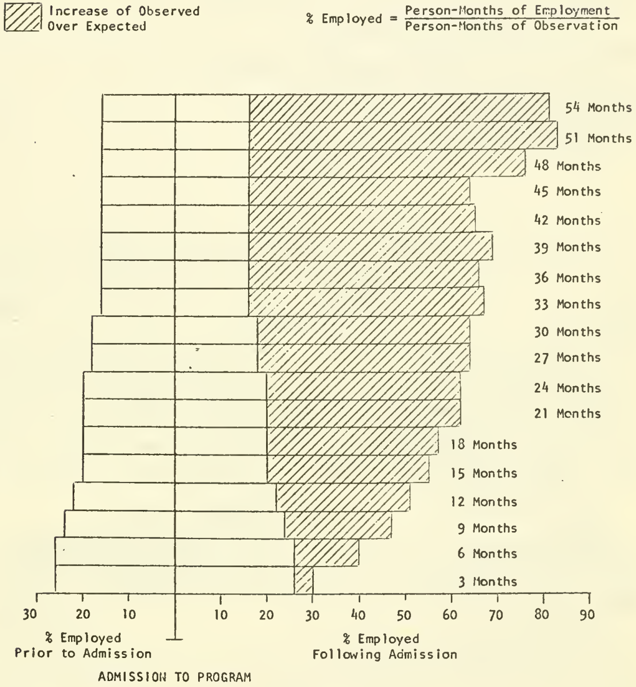
Employment Status and School Attendance for 466 Women in Methadone Maintenance
Three Months or Longer as of March 31, 1970
(In-Patient and Ambulatory Induction)



11/10/70

Figure 12 Methadone Maintenance Treatment Program

Percent of Person-Months of Observation During Which Men in Program Were Employed
Before and After Admission by Duration of Employment
as of July 31, 1969



11/10/70

Appendix A—Methadone Maintenance Treatment Program

Inpatient Induction Units by County as of October 31, 1970

- Manhattan:
  - Gracie Square Hospital (men and women).
  - Harlem Hospital (men).
  - Morris J. Bernstein Institute (men ad women).
  - Riker's Island (men).
  - Rockefeller University Hospital (men and women).
  - Roosevelt Hospital (men and women).
  - St. Luke's Hospital (men and women).
- Bronx:
  - Albert Einstein Medical Center (men and women).
  - Bronx State Hospital (men and women).
- Brooklyn: Brookdale Hospital (men and women).
- Westchester County:
  - St. Joseph's Hospital (men and women).
  - White Plains Hospital (men and women).
  - Yonker General Hospital (men and women).

Appendix B—Methadone Maintenance Treatment Program

Outpatient and ambulatory induction units by county as of October 31, 1970

	Number of units
Manhattan:	
City Probation	2
Gracie Square Hospital	1
Greenwich House	1
Harlem Hospital	5
Jewish Memorial Hospital	1
Morris J. Bernstein Institute	1
Lower East Side	10
Lower West Side	2
Rapid Induction	1
Mount Sinai Hospital	1
Rockefeller University Hospital	2
Roosevelt Hospital	1
St. Luke's Hospital	1
St. Vincent's Hospital	1
Bronx:	
Bronx State Hospital	1
Lincoln Hospital	1
Van Etten Hospital	1

	Number of units
Brooklyn:	
Brookdale Medical Center	1
Coney Island Hospital	2
Cumberland Hospital	2
Lutheran Hospital	1
Methodist Hospital	1
Queens:	
Long Beach Memorial Hospital	1
Triboro Hospital	2
Westchester:	
St. Joseph's Hospital	1
White Plains Hospital	1
Yonkers General Hospital	1
Yonkers Public Health Building (WCCMHB)	1

[Exhibit No. 10(b)]

Position Paper: Methadone—A Valid Treatment Technique

(By Frances Rowe Gearing, M.D., M.P.H. (Supported under Contract No. C–35806 from New York State Narcotic Addiction Control Commission), Associate Professor, Division of Epidemiology, Columbia University School of Public Health and Administrative Medicine, and Director, Methadone Maintenance Evaluation Unit)

For Presentation at State Conference on "Drugs—The Issues on Trial,"
Pontiac, Mich., December 2, 1970

Position Paper—Methadone Maintenance: a Valid Treatment for Heroin Addiction?

My answer to this question is yes when properly administered in an organized methadone maintenance treatment program.

There are at least five basic reasons for my positive response which I list:

1. DRUG PROPERTIES

Methadone has several properties which make it useful as a treatment for heroin addicts. These properties includes the following:

(*a*) It is a longer acting drug than heroin. Patients on methadone maintenance, after a relatively short induction period, require only one dose a day. This contrasts with four to six fixes a day for the patient "hooked" on heroin.

(*b*) Methadone is given by mouth in noninjectable form. This alone makes it most attractive from a medical standpoint, because it is well-known that many of the medical problems of heroin addicts are related to intravenous injection without proper sterilization techniques. These problems include, hepatitis, endocarditis, tetanus, and a plethora of other medical problems.

(*c*) Patients on methadone can be gradually built up to a stabilizing dose of between 80–120 mgs. daily, and can be maintained at this level over periods of time up to 5 years without having to alter the dosage level. This is in sharp contrast to the addict's experience with heroin. Patients on heroin rapidly develop a tolerance to the ordinary street "bag" to the point where they have either to increase the number of bags for each "fix" and increase their hustling in order to get more "bags" more often to support their needs, or to apply at a detoxification unit for a drying-out period which will bring them back on the street within 2 weeks with a less-expensive habit.

(*d*) Methadone maintenance when used at high dosage levels produces a "blockade" against the effect of heroin which might be referred to as heroin "euphoria." Under carefully controlled circumstances, patients stabilized on methadone maintenance given by mouth have demonstrated that this blockage is effective even with high doses of pure heroin.

(*e*) The long-term medical effects of methadone maintenance are minimal. This statement is based on a careful medical followup of a series of 80 patients who have been on 80–120 mgs. of methadone daily for a period of over 5 years.

These properties make methadone a very useful tool in the treatment and rehabilitation of patients addicted to heroin for the basic reason that it gives former heroin users a chance to use their time in a more productive way. Under methadone maintenance they are relieved of the problem of spending most of their waking hours in hustling for means to get their next "fix." This difference might be equated with the difference between the old insulin treatment for diabetes patients which involved three to four injections per day based on urnie samples. The new look in diabetes treatment is more apt to be one injection a day of long acting insulin or control by medication which can be administered orally.

2. REHABILITATION—EMPLOYMENT AND SCHOOLING

Patients on methadone maintenance can remain in their local community with their family or peer groups throughout their treatment. They are encouraged and offered considerable assistance by members of the program staff to complete their basic education at least through high school, to acquire a skill through additional vocational training, to becoming a wage earner and hopefully become self-supporting.

These objectives have been achieved in a majority of the patients in the methadone maintenance treatment program in New York City as illustrated by the employment profiles by men and women in figures 1 and 2. There is a steady and rather marked increase in the employment rate with a corresponding decrease in the percentage of patients on welfare as time in the program increases. This is true both for the men and the women.

3. CRIMINALITY

Patients on methadone maintenance have demonstrated a rather striking change in their antisocial behavior as measured by arrests as shown in figure 3, where the percentage of arrests among patients in the methadone maintenance treatment program is contrasted with their arrest experience for the 3 years prior to adminission and this "before and after" picture is contrasted with the proportion of arrests in a contrast group of men selected from the detoxification unit at Morris Bernstein Institute matched by age and ethnic group and followed over the same period. The arrest records of the two groups are quite similar for each year of observation prior to admission. Follwing admission to the program the contrast is vivid for each period of observation with the methadone maintenance treatment patients showing a constant and accelerated decline in criminal behavior and the contrast group showing a pattern very similar to the earlier period of observation.

4. SUPPORTIVE SERVICES

Patients on methadone maintenance have available to them on demand one or more members of the program staff who are ready, willing, and able to respond to their needs whether these needs be medical, psychiatric, vocational, social, or legal.

5. PROGRAM PHILOSOPHY

Treatment programs for heroin addiction using methadone maintenance have accepted the fact that the "hard-core" addicts have a chronic disease, and, therefore, need medication and support over a long period of time, if not for life.

This philosophy has resulted in a more permissive attitude toward patients who show evidence of recurrent abuse of other drugs such as barbiturates and amphetamines or continued chronic alcohol abuse, and every effort is made to assist the patients in handling these problems. Only when this support fails are patients dropped from the program.

CONCLUSION

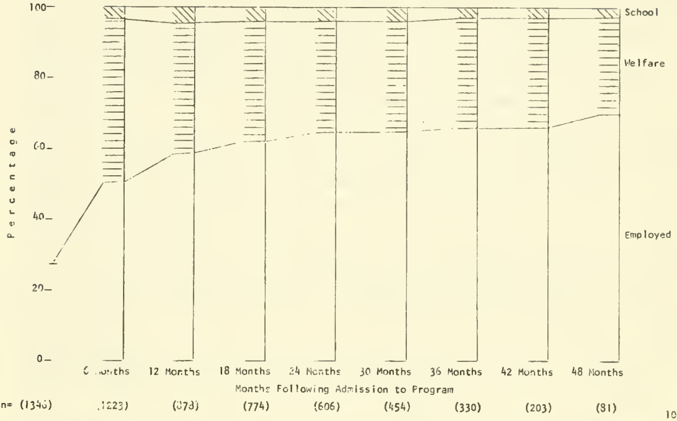
Methadone maintenance is a valid treatment for those hard-core addicts who are 18 years or older with a history of at least 2 years of addiction and who have had difficulties in adjusting to the stringencies of abstinence programs. Among patients selected in this manner methadone maintenance has proved successful in 80 percent of more than 4,000 patients in the New York City methadone maintenance treatment program. A majority of the patients have completed their schooling or increased their skills and have become self-supporting. Their pattern of arrests has decreased substantially. This is in sharp contrast to their own previous experience, as well as their current experience when compared with a matched group from the detoxification unit, or when compared with those patients who have left the program. Less than 1 percent of the patients who have remained in the program have reverted to regular heroin use. No other treatment program can demonstrate a better rate of success.

Methadone maintenance as a treatment modality was never conceived as a "magic bullet" that would resolve all the problems involved in heroin addiction. For this reason, we believe that any treatment program using methadone maintenance must be prepared to provide a variety of supportive services to deal with such problems as mixed drug abuse, chronic alcoholism, as well as psychiatric or behavioral problems and a variety of other social and medical problems. Therefore, methadone maintenance should not be considered as a method of treatment suitable for use by the private medical practitioner in his office practice, because of the requirements for other program components including social rehabilitation and vocational guidance.

Figure 1

Methadone Maintenance Treatment Program

Employment Status and School Attendance for 1346 Men in Methadone Maintenance
Three Months or Longer as of March 31, 1970
(In-Patient Induction)

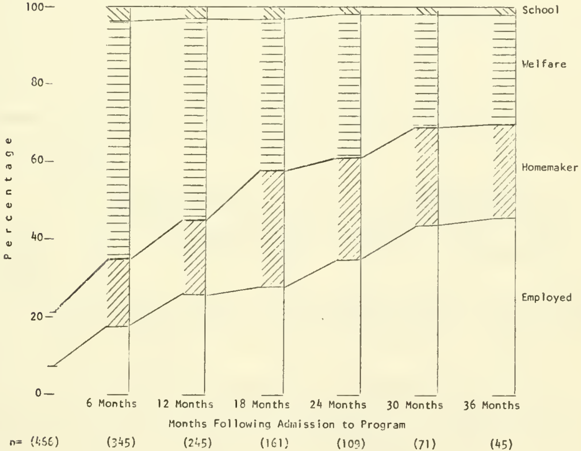


10/26/70

Figure 2

Methadone Maintenance Treatment Program

Employment Status and School Attendance for 466 Women in Methadone Maintenance
Three Months or Longer as of March 31, 1970
(In-Patient and Ambulatory Induction)

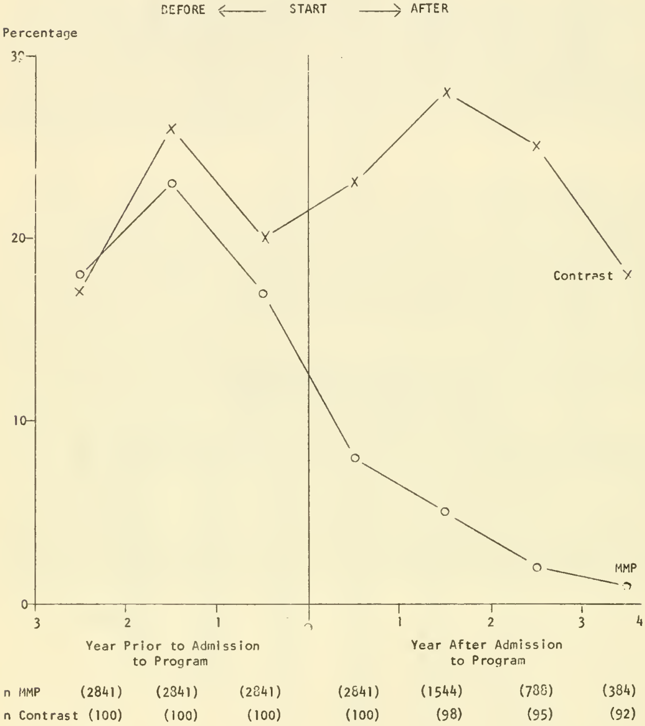


11/10/70

Figure 3

Methadone Maintenance Treatment Program

Percentage Distribution of Arrests for 2841 Men in Methadone Maintenance Program
Three Months or Longer as of March 31, 1970 and Contrast Group
By Months of Observation



11/10/70

Chairman Pepper. Our next witness is Dr. Robert L. DuPont, Director of the District of Columbia Narcotics Treatment Administration since its creation in February 1970.

Dr. DuPont, a young man with impressive credentials in medicine and phychiatry, has been changed with implementing Mayor Washington's pledge to have treatment available to every heroin addict in the District of Columbia within 3 years.

Prior to assuming his present position, Dr. DuPont was Associate Director for Community Services in the D.C. Department of Corrections.

In that capacity, Dr. DuPont participated in the preparation of a report that revealed that some 45 percent of all men brought to the District of Columbia jail in August 1969, were heroin addicts.

Since then, Dr. DuPont has used the word "epidemic" to describe heroin addiction in the District.

Dr. DuPont is a graduate of Emory College in Atlanta and the Harvard University Medical School. He served his medical internship at the Cleveland Metropolitan General Hospital and his residency in psychiatry at the Massachusetts Mental Health Center, Harvard University.

For 2 years, Dr. DuPont served in research and clinical psychiatry at the National Institute of Mental Health.

Dr. DuPont, we are glad to have you again before this committee.

STATEMENT OF DR. ROBERT L. DUPONT, DIRECTOR, DISTRICT OF COLUMBIA NARCOTICS TREATMENT ADMINISTRATION

Dr. DuPont. Thank you, Mr. Chairman.

Chairman Pepper. Mr. Perito, would you inquire?

Mr. Perito. Dr. DuPont, as you know, this committee is particularly interested in an evaluation of methadone and related drug abuse programs. One of the matters of particular interest to the committee is the question of the efficacy of methadone maintenance and its relationship to the decrease in crime rate or illegal activity of those addicts under such treatment. Have you any statistical studies which reflect findings similar to those which Dr. Gearing presented to the committee this morning?

Dr. DuPont. Yes, Mr. Perito. First of all, the District's program is not simply a methadone program. It is a multimodality program in which some people are taking methadone and some are not. Some patients receive methadone maintenance; others are taking it for detoxification.

I will answer your question, but I want to begin with that qualification because it relates to some of the statistics that I want to bring up.

Mr. Perito. Can you tell us how many addicts are presently being treated in your program?

Dr. DuPont. The current number is 3,106 as of last Friday, and of that number 1,760 are on methadone maintenance, 633 methadone detoxification, 631 are in abstinence programs. An additional 82 are receiving methadone on what we call "methadone hold" which means emergency treatment prior to complete evaluation.

Chairman Pepper. How many on methadone?

Dr. DuPont. 1,760 on methadone maintenance, 633 on methadone detoxification, 82 on methadone hold, which is an emergency short-term treatment, and 631 are in abstinence programs, that is, receiving no methadone.

Mr. Perito. Do you have a waiting list, Doctor?

Dr. DuPont. We don't have a waiting list right now. We have in the past, and we are moving in the direction of having a waiting list again. We found that a waiting list discourages many people from coming into the program. Only about 30 percent of the people who sign up on a waiting list actually show up, at least in our experience.

Whenever procedures are set up as hurdles for people to get over before treatment, act to discourage the use of the treatment, and accordingly limits the kind of people who will go over these hurdles to get in. It is a grave step to take to build up barriers of any kind to get into narcotics treatment.

Narcotics treatment of a continuing nature, regardless of whether it is methadone or abstinence, is efficacious in reducing not only heroin use but arrest rates. The critical question that needs to be addressed is the issue of retention in program. Some programs exaggerate their figures by counting patients who come into the program but who, for all practical purposes, dropped out and have no continuing relationship. Those patients that do have a continuing relationship and are participating actively, whether methadone or not, do quite well. I don't think one needs to feel he has to use methadone.

On the other hand, our experience is that for most criminal heroin addicts the treatment of their choice and the one that seems to make the most sense from their point of view does involve methadone. I think heroin addicts need to have choices for themselves about what kinds of treatment they are going to get. Our program at NTA offers considerable choice.

Mr. Perito. Is it fair to say that your programs goals are similar to the goals articulated by Dr. Gearing for the New York programs?

Dr. DuPont. Absolutely. Many of the best features of our program have been taken from New York, including our basic goals.

Mr. Perito. Directing your attention now back to my first question, you have compiled some recent statistics pursuant to the committee's request.

Dr. DuPont. Right. Last May 15 we drew a sample. NTA then had 1,060 patients in treatment. We did a random sample of 450 of those patients. Six months later, 56 percent of them were retained in the program.

At 11 months, the figure retained had fallen to 40 percent. So that 40 percent of the people in the program last May 15 were still in the program at the end of last week.

Now, the retention rate in the program is highly related to the use of methadone. I don't have the followup data to 11 months on the basis of treatment modality, but at 6 months the results were quite striking. We found that patients who were on 60 milligrams or more of methadone had an 86-percent retention rate at 6 months. Of the patients who elected abstinence, only 15 percent remained in the program for 6 months.

There is a very high dropout rate associated with abstinence programs, at least in our experience. Those who did stay in the abstinence program did well. That needs to be emphasized.

Now, about the arrest rate: Of the 450 in the program on May 15, 1970, 22.5 percent were arrested in the course of the following 11 months.

Of the 186 who stayed in the program the entire 11 months, or until arrested, a total of 25, or 13 percent were arrested.

Of the 264 who dropped out of the program, 75, or 28 percent were arrested.

Now, further to clarify this and to attempt to get at some of the harder data on this, we found that not all of the 450 people in the study had identifiable records of detention in District of Columbia jail. That is, we couldn't identify District of Columbia Department of Corrections numbers on all the patients.

Mr. PERITO. You had access to the criminal reference reports and rap sheets, I assume?

Dr. DUPONT. We had access to the rap sheets in the Department of Corrections so that if a person is detained in a correctional institution we have that information.

However, if he is arrested and released before going on to incarceration we do not have the data. This has happened in minor offenses, such as traffic cases and first offenses, but it is not common with addicts. However, when it happens, we don't have the information.

There is a law in the District of Columbia that prohibits the police department from releasing information to non-law-enforcement agencies on arrests. We are looking into this and are seeing if we can't get that information. It won't change any of the results, because we use the same criteria to apply to those who are in the program and those who drop out, and also to comparison groups.

So although the total number would change, the relative percentages would stay the same, at least that is our assumption.

But we asked this question another way: Of those people who have identifiable rap sheets, how many were arrested over 11 months.

We found that 19 percent of those who had identifiable rap sheets and who stayed in the program were arrested, whereas, 99 percent of the 145 who dropped out and who had rap sheets were arrested. The relative relationships were the same; that is, the people who dropped out of the program had an arrest rate over the period of 11 months of about 2½ times the arrest rate of those who stayed in the program.

Another way to look at this data is to ask, for example, about the arrest rate for a comparison group or similar group. The most similar group we have found was the Department of Corrections narcotics-involved releases prior to the existence of the Narcotics Treatment Administration, and of that group 36 percent were arrested in 6 months.

We don't have the figure for 11 months, but it would be over 50 percent.

Thus for those who stay in the program there is a considerable reduction in the arrest rate and methadone treatment is associated with higher retention rates.

On the other hand, I am not here to say that a simple matter of giving a person methadone is a panacea. It is not a magic method, as some have thought, to absolutely eliminate criminal activity. But there are dramatic reductions in arrest. There are some other studies of a more impressionistic nature and certainly those of us who have clinical experience could corroborate this, that show that heroin addicts who are in the treatment programs do in a dramatic way reduce their heroin use and that much of their criminal behavior was driven by their need to get heroin.

On the other hand, let's be clear that we are talking about a very disadvantaged segment of the population, by and large, a group for which there are often few employment opportunities, a group with very inadequate education and a group which has developed rather considerable skills in hustling and illegal activities.

It is therefore, hardly surprising to find that this simple matter of putting a person in a treatment program does not in itself eliminate criminal activity, although it clearly reduces it.

Mr. Perito. I asked Dr. Gearing about her knowledge of efficacy studies of drug-free programs, the value of detached analytical studies, and similar questions about the crime reduction. Do you know of any such studies in the drug-free programs across the Nation so that this committee can compare those results with the results of methadone and related drug programs?

Dr. DuPont. I think drug-free programs have tended to get involved unnecessarily in rhetoric and politics.

They tend to get more involved in this and have a hard time dealing with failures. So they are quite resistant in general to doing the kind of studies that Dr. Gearing has done and the kind of study that I reported here which, after all, reports something less than complete success.

Abstinence programs have a hard time dealing with their very high dropout rates.

I don't know of any published evidence of the efficacy of any drug-free programs that is comparable in any way with the kind of data that Dr. Gearing has presented.

On the other hand, it is my impression from visiting drug-free programs that they have considerable merit. The problem is that they are not acceptable to many heroin addicts. And many people who do start there, do drop out. So I think that any city which is thinking about programing for heroin addiction treatment, needs to include abstinence or drug-free programs, but it needs some perspective in terms of their efficaciousness and their acceptability to the heroin addicts.

I guess I could have answered that question by simply saying "No."

Mr. Perito. Doctor, at the present time, what is your appropriation?

Dr. DuPont. The current appropriation for the Narcotics Treatment Administration is $2.2 million with an additional $2.9 million available to us through Federal grants.

Mr. Perito. In addition to NTA's treatment programs, are you presently carrying on any independent research in the opiate area?

Dr. DuPont. Well, our research is primarily related to two questions, really:

One is trying to do some monitoring of the epidemic of addiction in the District of Columbia, and the other is evaluating the performance of our programs. We don't do any basic research into chemical alternatives to methadone, for example, or many other kinds of research.

Mr. Perito. Doctor, under the IND concept, as I understand it, your program is not specifically designated as a methadone maintenance program?

Dr. DuPont. Well, the IND procedure does not specify what maintenance is, and this has been a very serious handicap in the District of Columbia in terms of trying to come to grips with the private physicians and others who are using methadone in ways that many of us feel are not responsible. There are regulations associated with the Food and Drug Administration that deal with methadone maintenance, but since they don't define "maintenance," it is quite possible for people to talk about long-term or even endless detoxification programs.

They talk about 20-year detoxification programs. In other words, there is no point at which detoxification becomes a maintenance. It is a matter of anyone's semantics.

NTA does have an application with the Food and Drug Administration and we have the distinction of being one of the few programs to be audited by the Bureau of Narcotics and Dangerous Drugs. Five agents went over our procedures about 2 weeks ago, and this was very helpful.

But in general the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs make no attempt in assessing compliance, either with their regulations or IND protocol that was filed with them.

Mr. Perito. Doctor, we have heard testimony from several witnesses that it was their considered judgment that a private physician could not properly dispense methadone within an ordinary office because such physician is not able to offer the proper and necessary ancillary and supportive services. Do you maintain a similar opinion?

Dr. DuPont. Well, I again find myself really following in the footsteps, to some extent, of the work that has been done in New York City and what Dr. Gearing said today.

It is obvious in dealing with a widespread epidemic that has clear medical dimensions and where medical skills are valuable, that it doesn't make sense to entirely write off the private health care sector and try to create an entirely Government-run clinic system to deal with all the problems of all the people who are currently heroin addicts.

So I think the challenge is to find ways to make use of the private sector in a constructive way.

I think probably a good way to start is to have private physicians associate themselves with ongoing structured programs and then to pick up stabilized to successfully adjusted maintenance patients to follow privately.

Therefore, after a person has been in a methadone program and demonstrated his stability for 6 months or a year, then he would be transferred to a private physician who would handle no more than 10 or 20 heroin addict patients as part of his regular practice.

In this way we get away from part of the financial gain of private physicians merely selling prescriptions.

We don't build Government clinics to treat all diabetics. Most diabetics get private care. Stabilized heroin addicts can also move to the private sector.

Health insurance coverage for methadone maintenance is important once the person is stabilized. The private doctor then has the option, if that person breaks down, of returning him to the public clinic from which he came for more extensive work.

The private physician doesn't have the capability of control of methadone that is needed in the induction phases of methadone treatment. This involves more than just ancillary services. Private doctors have made their greatest errors by giving unstabilized patients 1 or 2 weeks' supply of methadone right at the beginning so that a patient takes out a bottle or prescription of methadone which he takes in an unsupervised way.

I think the dangers to the public from such practices are very great and ought to be avoided.

Mr. Perito. Chairman Pepper mentioned the situation relating to recent deaths. Do you anticipate, with the expansion of methadone programs, that death is a natural incident, that there will be three or four deaths as a result of the inevitable distribution process of your program, either because of misuse or wrongful distribution or a situation where a nontolerant person accidentally ingests methadone intended for an NTA addict?

Dr. DuPont. Well, I think that there will be deaths, and there have been.

On the other hand, I would certainly not take a fatalistic view that these are unpreventable and we just pass them off and go to the next patient.

I think we need to take these methadone-related deaths very seriously and to do everything in our power to try to reduce the likelihood of that kind of event occurring. For this reason NTA issues take-home methadone in locked boxes and child-proof bottles. We have rather elaborate forms that the patient signs.

On the other hand, I think it is a very serious public relations problem. All of the methadone deaths that are occurring are being charged either explicitly or implicitly to the NTA programs, and this is far from being true.

In the last 9 months in the District we have been able to uncover 23 deaths that involved methadone, either alone or with other drugs.

In only five of those deaths was there any relationship to the NTA program. Thus, 18 of them had nothing to do with the program.

But there were five deaths related to NTA and we do everything we can to prevent the likelihood of that occurring again. But in a situation where only about 20 percent of the deaths are associated with the NTA program, we suffer the criticism for all.

Chairman Pepper. Dr. DuPont, we have had a quorum call on the floor of the House. If you will please suspend and await our return, we will go over and answer the quorum and be right back.

We will take a temporary recess until we can get back, to answer the call on the floor.

(A brief recess was taken.)

Chairman Pepper. The commitee will resume session, please.

Dr. DuPont is on the stand.

Mr. Perito was inquiring of Dr. DuPont.

Mr. Perito. Dr. DuPont, have had occasion to administer cyclazocine or naloxone to any of the addicts in your program?

Dr. DuPont. No; we haven't. The only drug we have used is methadone.

Mr. Perito. You are probably aware of certain testimony that has been given previously to congressional committees by Dr. Yolles who has stated that cyclazocine and naloxone and antagonistic drugs are one of the most promising areas of narcotic research. Do you have an opinion, based on your experience, with antagonistic drugs?

Dr. DuPont. I think you are going to hear from Dr. Jaffe, who is one of the foremost experts on the subject.

As a clinician and an administrator, there are problems with the antagonistic drugs. Put simply, they are not acceptable to patients. Nowhere in the country, to my knowledge, has there been any large scale use of these drugs. The real issue—at least one of the initial problems—is that the heroin addicts don't find the antagonists helpful to them. Most patients don't, although there are a few who do.

The other problem is that the antagonists are presented to the public as if they were somehow more benign than methadone, for example, or were somehow to be treated more casually.

I think this is a mistake, and I think that the antagonists that we know of so far are like methadone in that they are only useful so long as they are taken regularly and remain in the body; that is, they don't immunize the person against anything, patients have to go right on taking cyclazocine or naloxone and we know far less about the long-term effects of these drugs than we know about methadone.

Mr. Petiro. Two final questions, Dr. DuPont.

When you testified before our committee in October 1970 you stated that to the best of your knowledge the addict population in Washington was 10,400. Subsequently you reevaluated your estimate and you have stated, to the best of my knowledge, that the addict population is, in fact, 18,000. Would that be your estimate today, 18,000?

Dr. DuPont. Well, our current best estimate is 16,800. I am not prepared to change that estimate yet, although it may be that the addict population is not growing any more, as it was in previous years. We don't have good enough measures, really, of changes in the addict population.

But the death rate has not been going up in the District over the course of the last 9 months. If anything, it has fallen slightly during this period of time.

So I use 16,800 as a ballpark estimate. The only fact that is really relevant is that there are still very many untreated heroin addicts in the Washington community who are suitable for and interested in treatment.

We had occasion 5 weeks ago to open up a new clinic. It was the first new clinic NTA had opened in many months. This clinic was swamped with patients, going from zero to 200 patients in the course of 6 weeks.

Even though we are providing treatment for 3,000 patients we can recruit 200 new addicts by opening a clinic for just 6 weeks. This is a very startling demonstration that when clinics are opened they attract patients. I think the only relevant fact is that there are thousands of untreated heroin addicts in the District of Columbia today.

Mr. Perito. How many addicts are presently being treated in the District either under the auspices of NTA or some other program operating and funded within the District?

Dr. DuPont. Well, there are no other programs that have anything like comparable numbers. I would say that using our definition there are no more than 500 other heroin addicts who are being treated in all the programs in the city, including the abstinence programs.

Including the detoxification programs and the private physicians, it may be that there are as many as a thousand more patients in all. I can't imagine the total being higher.

Chairman Pepper. Dr. DuPont, you told us that approximately half of the people who were in jail here in the District were found to be heroin addicts.

Have those figures been carried forward by the police department at the present time?

Dr. DuPont. Yes; we repeated this study in January 1971, and have not finished analyzing it. I don't have the full breakdown yet. But it was very significant that there wasn't an obvious reduction in the percent. The figure is still about 50 percent.

One thing that was quite dramatic, however, was that the percent of drug arrests had increased dramatically. Whereas when the initial study was done in August 1969, 10 percent of the total of all people coming into the jail were on drug charges. By January 1971, the figure had risen to 22 percent of all jail intake.

This reflected the fact that far more purely drug charges were being made by the police.

Chairman Pepper. Has there been any study made of heroin addiction among people arrested for burglary, offenses against property, and muggings on the streets?

Dr. DuPont. Yes. We found that the addicts were slightly less likely to commit crimes against people than the nonaddicts coming into the jail, but that the differences were not statistically significant.

For instance, more than half of the criminal homicides were committed by addicts.

Chairman Pepper. More than half of the homicides were committed by heroin addicts?

Dr. DuPont. Right. So anybody who is reassured by thinking that heroin-addiction-related crime is confined to shoplifting, prostitution, and drug sales is sadly mistaken.

Chairman Pepper. I am glad to get that clarified. I thought it was generally assumed that heroin addicts were not very dangerous. They were satisfied, had a sensation of feeling good, but you said half of the criminal homicides are committed by addicts?

Dr. DuPont. That is right. But this must be put in perspective.

Most serious crimes, the FBI index crimes, are property crimes. The last time I looked at the list, 86 percent of all the serious crimes in America were so-called nonperson or property crimes. So that addicts are like other criminals, other criminal behavior of other people in that the primary crimes addicts commit are property crimes.

On the other hand, if you turn the question around and you ask of the person crimes, of the robberies, of the muggings, of the homicides, itself, what percentage of those crimes are committed by addicts supporting their habits, the answer is about one-half. This is a very serious and very important finding.

Chairman Pepper. Half of the crimes against property and against person?

Dr. DuPont. It is about equal. In other words, addicts commit about one-half of the person crimes and about one-half of the property crimes.

Chairman Pepper. So that the heroin addiction, then, has a very direct relationship to crime?

Dr. DuPont. Absolutely, including crimes against people.

Now, again this is not a drug effect. The heroin addict who is high is not a person inclined to commit crimes because the drug tranquilizes the person. But he commits crimes to secure money to buy heroin, and this need leads to desperation on the part of many addicts and they act in ways that are extremely dangerous to themselves and others.

Chairman Pepper. Well, now, you gave us evidence, as I recall, last year, when you appeared before our committee, that in your opinion the average addict in the street, in the District of Columbia stole—or had to get illegal possession by offenses against the person or otherwise—about $50,000 worth of property a year in order to sustain his heroin addiction. Is that still your general opinion?

Dr. DuPont. Yes. That kind of evidence comes from asking addicts about the size of their habits and then making some assumptions about the ways they get their money. For example, if a person says he needs $40 a day to buy his heroin, you would figure, if he is involved in stealing property, that he has to steal it at some discount so the total value of the property stolen is some figure in excess of the $40.

On the other hand, there have been some studies, since I testified before you last, that would suggest that the total amount of property crimes in the District of Columbia, at least as reported and estimated, is not large enough to support that assumption. So that this technique may overstate the actual criminal activity related to heroin addiction.

On the other hand, we don't really know how much unreported crime there is. We are also in a swampy area when we estimate how many addicts there are. The only thing we need to know however is that there is a tremendous amount of criminal activity associated with drug addicts. In the District of Columbia alone, $200 million a year is probably a low estimate.

Chairman Pepper. What do you estimate to be the average cost of heroin addiction a day?

Dr. DuPont. Well, $40 is the figure found.

Chairman Pepper. In other words, he has to get enough property in one way or another to net $40 a day?

Dr. DuPont. $40 a day. But the addict will put into his arm as much as he can get. The limit is not the physiology having to do with the drug, but his ability to get the money. Some days he is not as able as others so his habit fluctuates.

Chairman Pepper. Mr. Blommer.

Mr. Blommer. Thank you, Mr. Chairman.

Doctor, we are going to have Mr. Horan, the commonwealth attorney from Fairfax County, testify here tomorrow, and he believes there is a methadone epidemic.

Dr. DuPont. I believe there is a serious problem with methadone in illegal channels in this city.

Mr. Blommer. Do you accept methadone addicts in your program?

Dr. DuPont. You mean people who come to us and say they have a methadone habit from somewhere else and say they want to come into the program; sure.

Mr. Blommer. You would agree there is a black market in methadone?

Mr. DuPont. Yes.

Mr. Blommer. And there will come a time—I assume you are already thinking of it—when you have hard-core methadone addicts that may have become addicts from unscrupulous doctors, from the black market, or whatever, but now we have hard-core methadone addicts.

Dr. DuPont. Most of those people are using heroin, also. It will depend on the availability. I don't think you are going to find people who are shooting methadone, for example, who are not also shooting heroin. Usually they will go back and forth, and use whatever is more available.

Mr. Blommer. Would you believe it would be efficacious to take those people in your program?

Dr. DuPont. Yes. They are just like heroin addicts.

Mr. Blommer. Doctor, I know we have a disagreement on statistics and what they mean. I do have a sheet here that I believe we got from your office that shows in the last 6 months in 1970, 60 people that were autopsied by the D.C. coroner had narcotics in their bodies.

As I read it, 10 of the 60 died of gunshot wounds, 13 of the dead people had only methadone in their body, one had cocaine, and one had Talwin. Therefore, 15 of the 50 remaining after we take away the gunshot deaths had no heroin in their bodies. That leaves us with 35 heroin-related deaths. Could you, using whatever analysis or formula you want, make a judgment on how many heroin addicts there are in the District of Columbia?

Dr. DuPont. I am having a little trouble following your assumptions. You are making the assumption that the methadone addict is different from the heroin addict when he is pursuing addiction on the street. In other words, methadone will compete with heroin and produce the same effects when injected.

Injected methadone produces a high like heroin. It strikes me as sort of a question of semantics.

You could call them opiate addicts and lump them together and talk about the frequency.

For example, if it were more available, morphine would be the drug of choice. Today heroin is the main drug in the black market, but other opiates would work just fine.

Mr. Blommer. Doctor, what I am suggesting is that if and when we clear up the heroin problem that we might then be dealing with a methadone problem.

Dr. DuPont. I don't call that "clear." We now have an opiate addiction problem that is very serious, and if we switch from one drug to the other, and have all the same consequences, we have gained nothing.

Mr. Blommer. But the point is, though, Doctor, no matter who is giving the drugs out, there will be people who will be methadone addicts and people who are heroin addicts.

My question is: Don't you feel that there is a great danger that the people becoming methadone addicts will then just come to you instead of to the street pusher that they used to go to for heroin?

Dr. DuPont. Well, come to me for what?

Mr. Blommer. For their drugs, for their methadone.

Dr. DuPont. To do what?

Mr. Blommer. To satisfy their craving, assuming they are methadone addicts, to satisfy their craving for methadone.

Dr. DuPont. And then stay in the program and pursue the course we are interested in in the program. So what is the problem?

Mr. Blommer. The problem is you are aiding them in being addicts.

Dr. DuPont. I don't see how we are aiding them in being addicts. They were addicts before they ever got there.

Mr. Blommer. Doctor, is all the methadone dispensed by your clinic to the 1,700 people you are maintaining, is all that consumed in front of you?

Dr. DuPont. No; the patients who are stabilized in the program have take-home privileges and they take the methadone out with them.

Mr. Blommer. Don't you see a problem? Couldn't those people sell to the black market and then take heroin, for instance?

Dr. DuPont. Sure; but I think you are looking at a little thing and overlooking a big thing. Where do you think the methadone is coming from that is causing Mr. Horan's and other people's problems in Fairfax County? It is not coming from our program. He knows that.

He has said as much. Are you saying there should be no take-home medication? What we need is widespread availability of good treatment programs, whether they are in Virginia or the District. If you did that you would undercut tremendously the black market in heroin. You would undercut tremendously the death rates that we are seeing, and there would be a tremendous social gain associated with that. The need for good treatment is the big thing. Our take-home procedures are the little thing. We also need to do something about the uncontrolled, unsupervised dispensing of methadone in the metropolitan area. Do you agree with my statement?

Mr. Blommer. Well, to some degree; but you seem to premise that on the fact that the black market now comes from unscrupulous doctors.

Dr. DuPont. And perhaps other sources that I don't know about, but I am quite sure that it is not coming from our NTA program.

Mr. Blommer. Do you have an opinion on how easy it is to manufacture methadone?

Dr. DuPont. I talked to Mr. Ingersoll, Director of the Bureau of Narcotics and Dangerous Drugs, and he said as far as he knew there was no illegal manufacture of methadone.

Mr. Blommer. My question is: Do you know how easy it is to manufacture it illicitly?

Dr. DuPont. I don't know how easy it is.

Mr. Blommer. Did Mr. Ingersoll tell you about the laboratory?

Mr. DuPont. In Tupelo, Miss. They broke that one 2 years ago.

Mr. Blommer. And that man had made 50 kilos of methadone.

Dr. DuPont. Yes; maybe it will be happening again. If your argument is methadone is not a panacea and needs to be thought of as having a serious abuse potential, I agree with you.

Mr. Blommer. My argument is you should have far stricter controls than apparently you have.

Dr. DuPont. There is no evidence of our methadone being a problem in terms of control. We have questioned the police to find if they find it in illicit channels. Our methadone is clearly labeled. The police haven't brought even one bottle that they have found of our methadone. Where is the evidence? Nobody in Fairfax County has died because of our methadone. What is the problem we are addressing?

Mr. BLOMMER. Mr. Horan, I think, will address himself to that problem. I don't feel I should speak for him.

That is all the questions I have.

Chairman PEPPER. Mr. Mann.

Mr. MANN. Your methadone in the program is administered in a way to bring about stabilization, which means they don't get high off of it?

Dr. DUPONT. Right.

Mr. MANN. That would make it different from the street addict of even methadone?

Dr. DUPONT. Right.

Mr. MANN. You mentioned there were a wide variety of choices of programs under yours. I don't see but two, the methadone maintenance and abstinence programs. What else is there?

Dr. DUPONT. To give you an example of the diversity of the programs, we have halfway houses in which people can live in where they can in some cases take methadone and others remain abstinent.

We have 65 beds in a hospital unit for detoxification, primarily for young people. They have programs entirely abstinent and these are used a good deal. We have people taking it in decreased dosages, leading to abstinence and others maintained on it.

For example, in the city we cooperate with Colonel Hassan and the Black Man's Development Center. In the Black Man's Development Center patients go through a different experience entirely and are educated in citizenship training, residential treatment, and decreasing doses of methadone. That is a very different kind of treatment experience than goes on in most of the rest of our programs.

Another program, Step-One, run by ex-offenders known as Bonabond, Inc., is a halfway house and outpatient clinic that uses no methadone.

A person can move freely between any of these options.

Another program, Guide, D.C., uses psychologists and social workers, in family and individual therapy of patients, and for those who find that useful, they can go to the program.

So there is quite a variety of treatment programs, perhaps not complete, but quite a variety.

Mr. MANN. Getting back to the chairman's reaction to your statement of crimes of personal violence. I was interested in your statement that these crimes of personal violence were not motivated by the drug effect, but were still motivated by the acquisition of property, of funds to sustain their habits.

Dr. DUPONT. Right.

Mr. MANN. Have you made any effort to distinguish those property-related crimes, even though they result in personal violence, from crimes of passion resulting in personal violence?

If you were to take homicides and divide them in half you would find that half passion and half property?

Dr. DUPONT. Right. I haven't looked at that, but that is a good question. I will look into that and maybe I can supply something for the record on those crimes committed in our previous study.

Mr. MANN. Very good.

Thank you, Mr. Chairman.

(The information referred to above follows:)

Offense with which charged	100 addicts		125 nonaddicts	
	Profit	Passion	Profit	Passion
Larceny	21		11	
Robbery	10		15	
Burglary	6		8	
Stolen property	3		3	
Housebreaking			1	
Offense/family				1
Assault		5		9
Homocide		3		1
Assault/deadly weapon				3
Armed robbery	1		2	
Bank robbery	2		1	
Forgery	3		3	
Fraud	2		2	
Manslaughter				2
Private property				4
Total	48	8	46	20
Total (percent)	48	8	37	16

Note.—Table is a result of study conducted by the Narcotics Treatment Administration at D.C. Jail between Aug. 11 and Sept. 29, 1969, on an accidental sampling of 225 inmates.

Chairman Pepper. Mr. Wiggins.

Mr. Wiggins. Dr. DuPont, I am still a little bit confused on the effect of methadone on the human body. When it is taken by a patient in your program, what effect does it have on that patient?

Dr. DuPont. Well, the regular effect is that the person comes into the program and he has an opiate habit which is in almost all cases, at least as far as I have ever seen any data, a heroin habit.

When he comes he wants some help with that, and he will take an initial dose of methadone of around 30 to 50 milligrams. Now, when he takes that he has a suppression of the withdrawal of symptoms that he usually experiences and he feels relatively normal.

Now, the patient has choices at that point, and he can either go on decreasing doses leading to abstinence, taking anywhere from a few days to a few months; or he can choose a maintenance schedule in which his dose goes up to about 100 milligrams and he stabilizes at that point until he feels it makes sense to try detoxification and comes down again.

Depending on the amount of the drug, and if there is a little bit more given than is needed just to suppress withdrawal symptoms, the person might feel a little drowsy, a little euphoria.

He would also, in many cases, experience constipation. Some people will also experience excessive sweating. Those are the primary effects.

In addition, while the person is on increasing doses or beginning treatment, some men have a transient impotence, probably associated with the anesthetic effect of the drug. The mechanism is not clear.

Once he is stabilized, the only effect that most patients experience is the constipation and excessive sweating. In other words, there is tolerance to the other effects, except suppression of the opiate drug craving and the blocking of the euphoric effects of heroin.

Mr. Wiggins. Is there any benefit of feeling good by going out and getting more methadone if you are on a diet of 100 milligrams?

Dr. DuPont. No. Once on 100 milligrams there is no effect either orally or injected. Now, many patients do go out and shoot methadone or heroin to test their blockade. He will not have any euphoric or other effect.

There are several reasons a person might continue occasional use of heroin. Many persons are fearful about withdrawal symptoms and feel they must take increasing doses to prevent withdrawal symptoms, even though they can't feel the drug effects. But they feel very anxious.

We had one patient who, when a private doctor recently stopped his practice of giving methadone, said, "Oh, I didn't want to tell you this, but I was getting a second dose of methadone by going to a private doctor." Since there is no central registry now we didn't know that. He was taking two doses of methadone each day. What he was doing, as far as we can understand, was treating his anxiety about not getting enough.

The treatment was to counsel the patient, to help him see that he was getting enough methadone, and he stopped taking two doses.

Mr. Wiggins. Dr. DuPont, we are running out of time, and I would like to get into the record the technique you employed to prevent people from abusing your program by obtaining methadone from a second source, and the way that you insure that those who take it home do not misuse it. Would you describe your security procedure?

Dr. DuPont. The NTA patient takes his methadone on the premises for the first 3 months of the program, and then he gets take-home privileges of gradually increasing duration until the minimum frequency allowed, which is two clinic visits per week. The patient must be on the program at least 6 months to a year for that to happen.

The patient's urine is tested twice weekly. Urine tests identify all hard drug use, but, of course, we can't separate a second dose methadone. But we know that a person is not going to more than one of our centers, because all patients come in and have their pictures taken and get an I.D. card. It is, however, possible to take methadone from another source, either inside the city or out, which is a serious problem.

Mr. Wiggins. What would be an in-city source?

Dr. DuPont. A private physician. A person could also go to Colonel Hassan's program and register for that program and receive methadone and not be in our central register.

Mr. Steiger. Is he still conducting his program?

Dr. DuPont. Yes; and only those patients for whom we pay him in our central registry.

Mr. Wiggins. What is the solution to that problem?

Dr. DuPont. The solution is a regional registry for everybody who gets methadone. Everybody who takes a dose of methadone anywhere in this area ought to be required to be in a central register.

Mr. Wigggins. How central? Multistate?

Dr. DuPont. We should ultimately involve Baltimore as well as the suburban counties in Maryland and Virginia.

Mr. Steiger. I wonder if we could have the witness, if he could remain? I hate to impose on him, but I think all of us would like to explore this.

Chairman Pepper. Doctor, could you wait a few minutes more?

Dr. DuPont. Sure.

Chairman Pepper. Doctor, let me make this announcement before we recess. We will come back.

Dr. Jaffe is here, another distinguished witness, and he has kindly consented to stay over until tomorrow morning. Without objection on the part of the committee, when we do recess today we will recess until 9:45 tomorrow morning.

We will take a temporary recess so we can go over and vote again, Doctor. We are sorry to put you to so much trouble today.

(A brief recess was taken.)

Chairman Pepper. The committee will come to order, please.

Dr. DuPont, I understand you have some problems with time today, also.

Dr. DuPont. Yes; I do.

Chairman Pepper. We will try to expedite our examination of you.

Mr. Steiger.

Mr. Steiger. Thank you, Mr. Chairman.

Doctor, I wanted to get into one thing about half opened up by your testimony and others, that physicians are a source of the illegal methadone. I notice that in almost all the drug hearings we have had, and the committee has held before, even in other areas, there is a great reluctance to admit the complacency of the medical profession. I say "complacent" advisedly. I don't mean there is any kind of conspiracy by the medical profession itself, as a major source of opiates.

I wonder if in your experience, No. 1, if you agree that it could be a problem not only in methadone, but in the dispensing of other opiates, and if the equation that the reason for many of the people involved in your program and the New York City program are the underprivileged as an economic matter that the privileged are able to buy through pseudolegitimate source the wherewithal to feed their habits; is this a valid position?

Dr. DuPont. There are so-called medical addicts or people who have become addicted through medical treatment. This does not necessarily involve any dereliction on the part of the physician, although oftentimes there is less vigilance than probably was appropriate.

On the other hand, I don't think it would be fair to say that opiate addiction is uniformly distributed throughout the population by social class and that the lower classes don't have the wherewithal to get it and the upper classes do. Opiate addiction is concentrated in the lower social classes, even adding in people going to private physicians.

On the other hand, those who do go to private physicians are obviously from the upper classes. One thing we have noticed in the District is that whereas about 8 percent of the overdose deaths in the city are white, only about 4 percent of our patients are white, which means that there is an underrepresentation of whites in our patient group. I am sure that this is accounted for by more white addicts going to private physicians.

Mr. Steiger. That is a very interesting statistic and I can draw a lot of conclusions from it, which I don't want to do superficially, but I am glad to have these statistics.

Now, we have had some specific instances in the Phoenix, Ariz., area in which physicians were actually dispensing narcotics in a manner that could hardly be determined medically responsible. I don't think it serves any purpose to identify it as a racket, but just as irresponsibility.

My question is: In your experience, how widespread—I will phrase it a different way.

It would seem to me a very busy physician who finds it reasonably profitable and could justify perhaps in his own mind the regular prescription of opiate prescription for persons who didn't require much attention, and to which he was going to get paid for each prescription.

Dr. DuPont. In advance.

Mr. Steiger. In advance. Is that the way it works?

We have now taken public official notice of the private physician in regard to dispensing of methadone, and your recommendation there is that he not be permitted to do this without other qualification, which I think is very valid, but really we are still skirting the problem.

Dr. DuPont. It is still going on.

Mr. Steiger. Well, No. 1, of course, there is no way to control it, we understand that. We all know we are talking theory here. Short of having the AMA speak to its own, what do you recommend?

Dr. DuPont. Well, the AMA has spoken to its own. They had a release about a month ago in which they strongly discouraged private doctors.

I think it is going to take something more than this. I am not an attorney, but what I understand is that once a drug, any drug, is available in the pharmacy, any pharmacy, that any doctor can prescribe it for anything he wants to. There are certain recommendations that are made by the medical profession and by the Food and Drug Administration, but these do not have the force of law and the doctor can pretty much do what he wants.

Methadone is an established drug available in every pharmacy. I wonder if it wouldn't require some sort of legislative action to make methadone an exception and to bring it under control.

You might pursue this with subsequent witnesses who can speak more authoritatively, because I think it is a very serious problem when Federal agencies and other groups pretend to have the power to curb certain kinds of behavior that are considered to be undesirable but really don't have that power. The question is whether they do have the power; if they do have the power, then why has nothing been done?

I think many people are misled and believe that power exists when it doesn't.

Mr. Steiger. Good.

Thank you, Doctor, I have no further questions.

Chairman Pepper. Is that all?

Mr. Steiger. Yes.

Chairman Pepper. Mr. Rangel, have you inquired of Dr. DuPont?

Mr. Rangel. Doctor, in your medical experience, have you ever found a national health problem such as drug addiction being treated as you are treating it with—and multimethods of service and community controls? Is this a usual way to treat a problem of such enormity?

Dr. DuPont. I don't think there is anything usual about heroin addiction. I don't know what the analogy would be. I think it is very exceptional.

Mr. Rangel. This is a very exceptional method of treatment of any problem, any medical problem of this sort, isn't it?

Dr. DuPont. I think so. I am not sure where I am being led to, but I will say, "Yes," and put an asterisk after it.

Mr. Rangel. Well, I wasn't going to lead you any further, but I wonder if we were talking about a different economic class of people, whether or not those in the medical profession would be more prone to have this type of community control over dispensation of drugs.

Dr. DuPont. That is a good point. If it were a different social class I don't think the problem would have gone on in Harlem as long as it did without any treatment at all. It wasn't until the majority of the country, the more affluent part of the country, in any event, became very frightened about crime rates in their cities, and until they got concerned about their own junior and senior high school children using drugs that we got a national commitment.

But it is coming and I think it is to everybody's benefit.

Mr. Rangel. This national commitment, as far as I can see in the area of rehabilitation, it has settled down to the question of expanding methadone treatment; has it not?

Dr. DuPont. No; I don't think that is true.

Mr. Rangel. How much time does your institution spend on developing scientific methods of curing this, other than methadone?

Dr. DuPont. Well, about 25 percent of our patients are not on methadone, for example.

Mr. Rangel. But are you looking for other scientific cures?

Dr. DuPont. No; we don't do any basic research. That would be more properly done elsewhere. We are a city treatment agency.

Mr. Rangel. But you have no national institution that you can go to in order to increase your ability to deal with the drug addiction problem; do you?

Dr. DuPont. Well, the National Institute of Mental Health is probably one of the logical sources for this kind of activity. In fairness to them, some activity is going on there, but very little.

Mr. Rangel. Have they been of any assistance to you to reach a program where you could professionally feel that you are doing the best you can with what is available? Have they assisted you in developing your program?

Dr. DuPont. Yes; they have given us $800,000 a year for one major component of our program.

Mr. Rangel. I am not making myself clear. I am not talking about the money. I am talking about you, as a doctor, with your background.

Dr. DuPont. I see.

Mr. Rangel. Have you got a national institution that can give you scientific data as a result of their research that you can depend on so that perhaps you could expand and develop other methods of treating drug addicts, other than methods of Colonel Hassan?

Dr. DuPont. No.

Mr. Rangel. So that as far as you are concerned, all you have is what New York City has done as a basis of where you are going?

Dr. DuPont. Well, I think Chicago and Dr. Jaffe added something very important to the New York experience, and that was the concept of a multimodality program. So I think there are other additions, and I think all over the country there are a lot of very resourceful and energetic people who are involved from a variety of sources.

For instance, in Stanford University, Professor Goldstein, who is a pharmacologist, made a very important contribution, for example, with a urine testing technique which promises a lot of advantages over what we had before. I don't think it is quite fair to say there is no where to turn.

Mr. RANGEL. I am talking about on a national level.

Dr. DuPONT. I think the national agencies have provided very little, approaching nothing.

Mr. RANGEL. You said earlier that there was no difference between a heroin addict and a methadone addict, and I agree with what you and I have seen in central Harlem.

On the other hand, other people have testified there is no difference between a methadone addict and a diabetic. I see a large medical credibility gap between those two statements.

Dr. DuPONT. Well, I think Mr. Blommer and I were talking about the "addict" as different from the "dependent." Dr. Gearing made this distinction. We are going to have to make a distinction between the person who is taking methadone and is dependent upon it as part of a structural program and the so-called addict. Both are technically addicted, although the behavior one observes is quite different.

Mr. RANGEL. Let me just use your terminology. Is there any difference between a person dependent on heroin and a person dependent on methadone?

Dr. DuPONT. Yes; I think there is a dramatic difference. It is associated with the drug and also with where it comes from.

Mr. RANGEL. Didn't you say earlier there was no difference between a heroin addict and a methadone addict?

Dr. DuPONT. When it is out on the street and people are shooting it and are pursuing an addict life style, there is no difference.

Mr. RANGEL. To put it another way, if we were to dispense heroin or have a heroin maintenance program, then would there be any difference, taking out the life style of the street and heroin maintenance program and your methadone maintenance program?

Dr. DuPONT. Yes; there would be. I think there are pharmacological advantages to methadone, which is very important. One is that methadone needs to be taken once a day instead of three or four times a day as with heroin. That is a very important distinction.

Another difference is that methadone can be taken orally rather than injected. Many of the problems associated with heroin addiction have to do with its being injected.

Perhaps even more important, methadone allows the person to be stabilized at a dose and he doesn't continue to crave for increasing amounts.

The fact is that most people "maintained" on heroin—for example, in the British clinics—are dropouts from society. This is not the typical experience with the methadone-dependent patient in a program. He is a person who is able to call on his own inner strength and pursue a life course that makes sense, including productive prosocial work.

I think the personal experience of seeing the persons in a methadone program is dramatic.

I was with the Department of Corrections a little over 2 years ago and had no interest in or special knowledge about this field. I went through a very personally moving experience when I first visited a methadone program and talked to the patients. This experience meant more to me than all of Dr. Gearing's charts. But I was impressed by the sincerity of many of these people as they described the difference of their lives and their families after methadone treatment. You talk, for example, to the wives of men who are in the program, and they are appreciative of the changes that have come about in their husbands.

Mr. Rangel. You can't attribute all of this to methadone.

Dr. DuPont. No, I don't. I think a lot of it has to do with the program, but I think the programs could not function without methadone. If you put a head-to-head kind of test with just the ancillary services in one and the other you had the ancillary services plus methadone, you would get 10 percent effect in the one with ancillary services and 90 percent in the other.

I don't think you should underestimate the effect of methadone in dealing with chronic heroin addiction.

Mr. Rangel. But you don't know if you were able to give all of these services to youngsters not addicted to anything whether or not you would still feel great that you were helping youngsters?

Dr. DuPont. I think youngsters need all of the services, regardless of whether they are taking heroin, especially employment opportunities. There are great segments of our society who don't have enough opportunities now, whether they are on a program or not.

That is another thing that happens to you when you work with these people, you learn that.

Mr. Rangel. Would you consider your patients normal? Someone said earlier, a witness testified that they believed that the methadone patient would always be dependent on drugs. Now, you have different programs, but you do have one that does not try to diminish the amount of methadone, and is it fair to say that the person included in this program will always be dependent on methadone?

Dr. DuPont. No; it isn't fair to say that, because some will try at later points to come off and some of those people will make it.

Mr. Rangel. During this period of time, how do you as a doctor distinguish between them and so-called normal people who are——

Dr. DuPont. You can't tell any difference. The only way is the urine test.

Mr. Rangel. But how do they function?

Dr. DuPont. Methadone maintained patients function perfectly normally. To add to this a little bit, I have never seen this in writing and I hope it is not denied, but it is, I understand, the case that the District of Columbia Motor Vehicles Bureau has been very interested in how our methadone people have been faring in terms of accidents. Although they have a list of quite a number of our patients asking for permits about whom we have written saying they are rehabilitated. So far, these patients haven't had the first accident. The Motor Vehicles Bureau said facetiously, that methadone maintenance may not only reduce crime but also reduce auto accidents.

But I think the point is very important. These people do perform normally.

The same thing goes on with employers. As Dr. Gearing said, employers are quite skeptical about methadone. Many have learned from experience that methadone maintenance patients make good employees.

But again I want to emphasize what I think you are saying, which is that there are vast unmet needs in the community which spawn heroin addiction and support all kinds of destructive behavior. Methadone does nothing about those problems.

Mr. Rangel. Thank you.

Chairman Pepper. Mr. Keating.

Mr. Keating. Doctor, did I understand you earlier to indicate that there were 26 deaths attributed to the methadone, or did I hear you incorrectly?

Dr. DuPont. Twenty-three that involved methadone. Not all you could say could be attributed to methadone, because many of them also had heroin as well. There were a total of 14 of the 23 that did not involve heroin also.

Mr. Keating. Breaking that down, did you indicate that five were associated in some way or another with your group?

Dr. DuPont. Five out of the 23 and three out of the 14.

Mr. Keating. How were you able to determine if these were associated with a drug dispensed by your organization?

Dr. DuPont. Well, two of them were patients who were in our program 2 days, one of whom took heroin and alcohol along with the methadone and died of a multiple overdose.

The second was a young woman who was in the second day of the program and felt sick in the evening after taking her dose at 8 o'clock. She went to bed, vomited in her sleep, inhaled the vomit into her lungs, and died. Those were the only two patients to die of overdoses.

A third death was a person who was put into a cab and who was about to die of an overdose. The cab raced to the hospital but the driver noticed that the person who put him in the cab threw something into the street that was not identifiable. The policeman was told about this. When he came back and looked in the street he found a bottle with an NTA label. But we count that as a death that may have had something to do with our methadone. Two other cases occurred when people not in the treatment program were given bottles of NTA methadone and died of overdoses. Both included heroin as well as methadone; that is, they participated in an addict drug-taking experience which involved methadone.

That is the total: Five.

Mr. Keating. Have you had any deaths that were attributed to people who took the methadone from the clinic to take at home or as a result of that procedure? You know, you have some people that only come in twice a week.

Dr. DuPont. No patient who has been on the program longer than 2 days has died from an overdose of anything.

Mr. Keating. I think that helps clear up a number of questions I had. How do you ascertain the previous experience of the patient in terms of heroin or methadone or some other drug?

Dr. DuPont. We ask them and record the information about when they say they first begun to use each of the numerous illegal drugs, including methadone and heroin.

We also take a urine test at the beginning of the treatment. It remains possible for a person who is not an opiate addict to get into our program and to continue to participate in the program without ever having been an opiate addict.

For example, if a person would drink a bottle of tonic water, such as gin and tonic, it would produce quinine in the urine, which is a common finding with people using heroin. We would tabulate that as heroin "positive." But such an impostor would have to drink the methadone on the NTA premises for 3 consecutive months and give us a urine sample twice a week. We haven't had any investigators or reporters that pursue that course. Whether there are people, children or otherwise, who have gone through this process and are not bona fide addicts in the first place, we don't know.

Mr. Keating. How do you know what level to start them?

Dr. DuPont. On the basis of what they tell us. A person who is young would get a smaller dose and a person without a lot of track marks would get a smaller dose, and an older person with a lot of track marks would get a larger dose. In all cases, the dose is from 20 to 50 milligrams to start.

Mr. Keating. Do you have any information of somebody coming in and getting started in your program? I think this question was asked earlier. Is that a constant concern of yours?

Dr. DuPont. I am concerned about it from a theoretical point of view. I don't have any evidence of that happening. My impression is it is unlikely because the methadone treatment in my experience is not a positive one in terms of pleasure. It is certainly disruptive to a person's life to come in every day for 3 months and fill out all the forms, get an I.D. card, and to give us urine specimens twice a week. This would deter, I think, a casual fake from coming in.

On the other hand, I am concerned about it and if there was some evidence to the contrary I would like to know about it. We are really quite concerned. There isn't any obvious way to find that out, though.

Mr. Keating. You indicated a patient needs a choice of modality. How many different choices do you provide?

Dr. DuPont. There are 15 centers in the city right now, not that everybody can choose each one of them. For example, some of them are restricted to geographic areas. So if a patient doesn't live in that geographic area he can't go there. But every person can choose at least detoxification on methadone with decreasing dosages, or methadone maintenance, unless he is under 18 years of age or reports a history of addiction less than 1 year, in which case he cannot choose methadone maintenance. Each patient can choose an abstinence program and come in and give a urine sample and participate in counseling programs.

Mr. Keating. Do you check any police records as part of your procedure, before you put them on your program?

Dr. DuPont. No. This is certainly a good thought. We are now considering trying to identify arrest records earlier, and if we can't, to make extra efforts to make sure we have the correct identification.

Our initial attempts to make positive identification were not as strict as they are now. Our current procedure is to find a driver's license or something else to confirm identification.

In other words, we just don't take the person's word for his name, the way we did earlier in the program. Everybody who now has his identification renewed is expected to go through this same process of proving who he is.

Mr. Keating. Is there any procedure during the course of your treatment that would lead to a counseling that would try to persuade the person to abstain?

Is there any effort in this direction?

Dr. DuPont. I am reluctant to get involved in encouraging that unless there is some reason to believe it is likely to succeed. It is very hurtful to people to talk them off methadone when they really need to be on it. We have had some very bad experiences with people who have discontinued methadone under some overt or covert staff pressures and then who go back to heroin and leave the program.

Mr. Steiger. Excuse me.

Mr. Keating. Yes.

Mr. Steiger. A person who is addicted or dependent on methadone in the oral form, and he abstains, are his withdrawal symptoms physically as stringent as the heroin addict?

Dr. DuPont. They tend to be, dose-for-dose, less intense and of longer duration, but, of course, the dose-for-dose qualification is important because the street heroin addict is likely to have a smaller total dose. The people who are on methadone maintenance have very painful withdrawal symptoms if they stop abruptly. If they detoxify over weeks or months the common experience is easy until the patient is down to about 20 or 30 milligrams a day, at which time he will start developing hunger for the drug again and he may start shooting heroin again.

When he takes his last dose of methadone, if he doesn't go back to heroin, he will have insomnia, aching of his joints and muscles, which will last for several days to several weeks.

Chairman Pepper. Mr. Brasco?

Mr. Brasco. Thank you.

There are several observations that have been made, Doctor, and it is sort of puzzling me. I share the concern of my colleagues about the problem of methadone traffic in the street. It would appear to me that if there is no euphoria attached to drinking mehadone, then there would be no need or no reason for an addict to be taking it in the street, unless——

Dr. DuPont. He shoots it, they inject it.

Mr. Brasco. All right. Now, the next thing is if he does that and based on my own experience in the area, having practiced criminal law for some 10 years, addicts are not stupid when it comes to their own needs.

Are the problems that you talk about concerning greater withdrawal effects in using methadone, and obviously if they are obtaining it illicitly they are paying for it anyway. What would be the advantage of using methadone when an addict can get heroin in the streets easily.

Dr. DuPont. Well, if the methadone is cheaper he would take the methadone, and I think with the widespread availability of methadone on the street it is cheaper, dose for dose.

Mr. Brasco. So what you are basically saying is that the people that are trafficking in the street are using it to shoot it up because of the availability and the fact that it is cheaper?

Dr. DuPont. Oh, yes.

Mr. Brasco. One other thing.

I agree with my colleague, Mr. Rangel, that the support programs surrounding the methadone program that Dr. Gearing talked about, if they were given to underprivileged people without the problem of addiction they would be very effective in doing a job to lessen crime rates in deprived areas. But in your program I am wondering whether or not there is great resistance in the job opportunity areas, based on two reasons:

One, the fact that the individual is an addict in your program; and two, this question of the previous record of an individual, which seems to me probably to be the most destructive force that we have in our area of rehabilitation. I am wondering if we were able to devise some kind of system where we could do away with a criminal record following you around for the rest of your life, whether or not that would be helpful in terms of the effectiveness of your program, at least the followup portion, the job aspects?

Dr. DuPont. Well, it might be. It certainly wouldn't hurt. But I think you have to keep in mind that the average educational level of the patients in our program is 10th grade. That is, half the people have dropped out by the time the 10th grade has come around. So we have some serious handicaps here of an educational nature that are not going to be dealt with simply by eliminating the arrest record.

I think in some respects I would like to put in a qualification on the ancillary services and dealing with the patients' problems. I don't know where the evidence is about job training, for example, or psychological counseling in terms of reducing unemployment, or many other things.

I think that the whole manpower question really needs a very hard look at what is going on. I am taking the position that it is not just training that is needed, but opportunities for work. You can have a lot of training go on and put an awful lot of money into training programs that don't really go anywhere.

Mr. Brasco. Let me just rephrase the last question another way:

Getting away from the program that you are talking about and in the area that you are expert in, do you think that carrying a prior record around for the rest of your life serves any purpose other than to deprive people of job opportunities?

Dr. DuPont. I think it does deprive people of job opportunities, but, perhaps, not as many as you may be thinking. It is possible in many circumstances to establish an identity as a rehabilitated former offender that is quite positive and constructive.

I don't think it is necessarily a bar forever. There is some evidence of social change about this. Businesses, I think, now are more concerned about social responsibilities in terms of reducing criminal behavior by providing job opportunities, more so than they were 5 years ago.

Mr. Brasco. Thank you.

Chairman Pepper. Dr. DuPont, I just want to ask you one question:

You estimated there were 16,800 addicts of heroin in the District of Columbia. You testified you had 3,160 in your treatment program and most of the rest of them are not being treated.

Now, how much money would it take, according to your best estimate, to provide the best known treatment to all the addicts of the District of Columbia?

Dr. DuPont. Mr. Chairman, our best estimates are that it costs about $2,000 a patient-year to provide comprehensive multimodality treatment.

That amount of money in no way meets all the needs of these people, including health and training, et cetera. But it meets many of them.

Using this figure as rule of thumb, it would take about $34 million to treat 16,800 heroin addicts.

Chairman PEPPER. You are now getting a total of about $5,100,000 for the program from the District and Federal Governments?

Dr. DU PONT. Yes sir.

Chairman PEPPER. Well, thank you very much, Doctor. We appreciate your coming.

I am sorry to have kept you so long.

We want publicly to thank Dr. Jaffe again for his willingness to stay over and let us hear him tomorrow morning.

We will recess until 9:45 tomorrow morning, in room 2253, and we will be back in this room at 10 o'clock Thursday.

Without objection, the insertions will be included in the record.

Mr. PERITO. For the record, Mr. Chairman, exhibit No. 11(a) is entitled "Profile of the Heroin Addiction Epidemic."

Exhibit No. 11(b) is dated January 12, 1971, and entitled "Summary of 6 Months Follow Up Study."

Exhibit No. 11(c) is in the handwriting of Dr. DuPont and is entitled "Dr DuPont's Numbers."

Exhibit No. 11(d) is dated January 1971 and entitled "Administrative Order."

Exhibit No. 11(e) is entitled "A Study of Narcotics Addicted Offenders at the D. C. Jail."

(The exhibits referred to above follow:)

[Exhibit No. 11(a)]

PROFILE OF A HEROIN ADDICTION EPIDEMIC

(By Robert L. DuPont, M.D., Director, Narcotics Treatment Administration, Washington, D.C.)

ABSTRACT

Washington, D.C., is experiencing an alarming epidemic of heroin addiction. According to current estimates there are now about 17,000 heroin addicts in the city.

Two-thirds of the addicts are under 26 years of age, 91 percent are black, 74 percent are male, and 52 percent began heroin use within the last 4 years. In one large part of the central city it is estimated that 20 percent of the boys aged 15 to 19 and 38 percent of the young men 20 to 24 are heroin addicts.

A major treatment program has been implemented in Washington which is now treating 3,000 heroin addicts of whom about 75 percent receive methadone.

An initial performance study found that 55 percent of all patients remained in the program after 6 months and that 86 percent of those on methadone maintenance were retained in the program during the 6-month study. Among the patients treated, heroin use decreased, arrest rates fell, and employment rates rose.

INTRODUCTION

Washington, D.C., is engulfed by an alarming epidemic of heroin addiction. Increasingly sophisticated research information accumulated over the course of the last year demonstrates this without a doubt. It is now estimated that there are 16,800 heroin addicts in the city, or 2.2 percent of the total population of 756,510. The social and personal losses are tremendous. The related crime rate is appalling.

But the figures do not stop with the tragic consequences of heroin addiction in the Nation's Capital. Limited data available from metropolitan areas around the country suggests that these cities are also experiencing the epidemic.

Upon recognizing that heroin addiction was such a disastrous problem in Washington, D.C., the largest and fastest growing municipal treatment program in the Nation, the Narcotics Treatment Administration, was begun in February 1970. Nevertheless, it is obvious that even this effort is grossly inadequate for the needs of the Washington community.

What is known of the epidemic in Washington? How many heroin addicts are there? Where do heroin addicts live in the city? What are the basic characteristics of the addict population? When did the epidemic begin? Is it getting worse? What is the relationship between the distribution of addiction in the city and other social factors including crime and poverty? How much does the epidemic cost the community? What can be done about it?

This paper attempts to answer these vital questions and should be useful to the Washington, D.C., community and to other cities and States which know far less about their problems with heroin addiction.

How many heroin addicts are there?

In the summer of 1969 the only basis for estimating the Washington addict population was the Bureau of Narcotics and Dangerous Drugs (Justice Department) 1968 list of 1,162 addicts in Washington. However, in August 1969 a study at the District of Columbia jail showed that 45 percent of all new admissions were heroin addicts. Only 27 percent of the men identified as addicts by interview and urine testing were previously known to the BNDD (1).

On the basis of this new information, the estimate of the total number of addicts was raised to 3.7 times 1,162 or 4,300 addicts. Next, in cooperation with the District of Columbia coroner, an analysis was made of the total number of known opioid overdose deaths in Washington. An opioid overdose death is a sudden death, without other cause, of an individual whose urine or other tissues contain an opioid drug such as heroin, morphine, or methadone (3). In 1967 the number was 21. Using the Baden formula (2) that one of every 200 heroin addicts dies of an overdose reaction each year, the total number of District of Columbia heroin addicts appeared to be 4,200 for 1969. However, there were 13 overdose deaths in the first 3 months of 1970. This was equivalent to 52 per year and indicated a total addict population of 10,400 using the Baden formula. During the first 6 months of 1970 a total of 21 people died of overdoses. Thus, in the first 6 months of 1970, the same number died of overdose reactions as died in all of 1969.

In July 1970, again in cooperation with the District of Columbia coroner, a new more systematic procedure was developed. Complete narcotics drug screens (using gas liquid chromatography) were performed on all autopsied deaths of individuals between the ages of 10 and 40 as well as individuals younger or older who showed evidence of drug use. During the next 6 months, 42 people were identified as dying of opioid overdose reactions. The annual rate was 84. The estimate of total heroin addicts was accordingly raised to 16,800.

During the calendar year 1968 a total of 875 narcotic addict information forms were received by the Biostatistics Division of the District of Columbia Health Services Administration. In 1969 one of these individuals died of an opioid overdose. During 1970 three died of opioid overdose reactions. Thus the rate of death was one per 438 man-years. This data was not used to compute a "Washington formula" because the numbers are small, but it suggests that the multiplier used by Baden in New York may be low for Washington. If this is true, then the current estimate of 16,800 heroin addicts in Washington may also be low.

It should be noted that the increase in the rate of overdose deaths in the last 2 years did not reflect only increased heroin use. In part, the increase was due to greater awareness of the problem of overdose deaths and to improved and more frequently used laboratory procedures. For example, during the 18 months prior to July 1970 drug screens were performed on only 6.3 percent of all autopsied deaths. During the last 6 months of 1970, the period of the systematic study, narcotic drug screens were performed on 51 percent of all autopsied deaths. (See table 1.)

There was no evidence of increasing death rates over the 6 months of the study. Twenty-three people died from July through September, and 19 died from October through December 1970. Thus, although the time span was short, and the numbers were small, the Washington heroin addiction epidemic may have stabilized during the last 6 months of 1970. Data collection is continuing and in the next year more definitive conclusions should be possible.

By January 1971, a private drug treatment program located in the District of Columbia, the Blackman's Development Center (BDC) which made small doses of methadone available to addicts as part of a voluntary outpatient withdrawal program, had registered over 20,000 "drug dependents"—almost all heroin addicts. Some BDC clients lived in the Washington suburbs, which have almost no treatment facilities for heroin addicts. However, it seems unlikely that the suburbs contributed more than 10 to 20 percent of BDC registrants. Thus, even when the BDC registration list is discounted for suburban residents, nonheroin users and multiple registrations for the same person, the 20,000 figure suggests that there are many more thousands of addicts in Washington than the 1968 list of the Bureau of Narcotics and Dangerous Drugs indicated.

There are other figures which indicate that the addiction problem is greater than had previously been estimated. The Washington, D.C., Metropolitan Police Department reported 4,730 narcotics arrests during 1970. Ninety percent of these arrests related to heroin use or sale. The numbers of narcotic arrests for each year from 1967 through 1969 were 818, 1,077 and 1,716 respectively. Thus, there was a 462 percent increase in narcotics arrests from 1967 to 1970. Undoubtedly, part of this increase reflects improved and increased police activity. However, it also reflects the spreading epidemic of heroin addiction.

Evidence for increasing the estimate of the total number of heroin addicts in Washington comes from several relatively independent sources. These include the rate of commitment of narcotics offenders to the jail, the rate of opioid overdose deaths, and the rate of narcotics arrests. More direct evidence comes from the universal experience of Washington heroin addiction treatment programs which report large numbers of registrants.

No one piece of evidence is conclusive. However, taken together, the data form a pattern which clearly indicates that the number of heroin addicts in Washington is far higher than earlier estimates. The evidence also suggests that there has been a major increase in the prevalence of heroin addiction in the last several years.

What are the characteristics of the addict population?

In February 1970, Washington began a large multimodality treatment program, the Narcotics Treatment Administration. By January 14, 1971, there were 2,793 heroin addicts in treatment in the NTA programs.

Study of the 77 opioid overdose deaths in 1969 and 1970 revealed demographic characteristics of the group on the four basic variables of age, sex, race, and place of residence in the city. This population was then compared to the NTA patient population using these same four variables. The results are shown in figures 1 and 2.

There was a close correspondence between these two populations. This supported the assumption that NTA was reaching typical addicts and, unlike virtually all other drug programs in the country, the treatment population was generally representative of the total Washington addict population.

Some of the basic characteristics of this population are shown in table 2.

When did the epidemic of heroin addiction begin?

Assuming that the NTA patient population is representative of the total District of Columbia addict population, it is possible to determine when the heroin addiction began for Washington addicts. (See fig. 3.)

Fifty-two percent of the Washington addicts began heroin use after 1965 and 65 percent began after 1963. This data indicates that the epidemic began between 1964 and 1966 and became increasingly widespread at least through 1968.

The individual who has become addicted only recently is often less motivated to seek treatment for his addiction since he is still enjoying the "high" of the drug and has experienced relatively little of the pain and danger of addiction. Thus, most treatment programs have an overrepresentation of older, more chronic addicts. This reluctance of the newer user to seek help probably explains the sharp drop in the number of addict patients who began use during 1969 and 1970. However, it seems certain that the rise in addiction between 1964 and 1968 reflects a serious epidemic of heroin addiction in Washington. This is corroborated by a recent study of the rate of commitment of known addicts to the District of Columbia jail between 1958 and 1968 which shows a sharp increase occurred in 1967 (4). (See fig. 4.) This increase also corresponds to a sharp rise in reported serious crimes in Washington in 1966. (See fig. 5.)

A recent St. Louis study (5) suggests that the list of the Bureau of Narcotics and Dangerous Drugs of known heroin addicts, which is derived primarily from police data, generally offers a good estimate of total number of addicts in a community when the total is stable. The data may not be reliable, however, in a community which is experiencing a sudden epidemic of heroin addiction. The District of Columbia jail study showed that there is a substantial time lag between beginning addiction and coming to the jail. For example, the average period of addiction prior to the current incarceration was 7 years (1). Therefore, the discrepancy between the St. Louis data and the District of Columbia data may reflect the acute epidemic in Washington in recent years. This hypothesis gains some support from the fact that the BNDD list for Washington rose sharply from about 1,100 each year from 1965 through 1968 to 1,743 by December 31, 1970. The earlier BNDD figures for Washington for 1965 through 1969 were: 1,116, 1,164, 1,106, 1,162, and 1,636.

Where do heroin addicts live in the city?

Based on the opioid overdose deaths and NTA patients, and assuming that there are a total of 16,800 heroin addicts in the city, it is possible to describe a geographic profile of addiction in the city.

(See table 3 and fig. 6.)

The rates of heroin addiction range from less than 0.1 percent for the relatively affluent northwest section of the city west of Rock Creek Park, to the rate of 4 percent in the model cities area, area 6. These rates of addiction closely parallel reported crime rates and other indicators of poverty and social disorganization.

(See table 4.)

Using this same data it is possible to estimate the number of addicts per thousand people in various sex and age groups in the Washington, D.C., population.

From statistics based on opioid deaths, several conclusions can be drawn. Addiction is concentrated almost exclusively between the ages of 15 and 45. Sixty-five percent of the addicts are under 26 and 31 percent are younger than 21 years of age. For the age range 15 through 19, the citywide rate for boys is 10.7 percent and for girls 2.2 percent. The next older age bracket, 20 through 24, has rates of 19.8 percent and 3.2 percent respectively for boys and girls. From 25 through 29, the rates are 6.2 and 5.0.

(See fig. 7 and table 5.)

Relating this data to the geographic distribution data and using the distribution of NTA patients indicates that in service area 6 (the model cities area) 20 percent of the boys between the ages of 15 and 19, and an astonishing 38 percent of the young men between the ages of 20 and 24 are heroin addicts. The District of Columbia model cities area begins six blocks north of the White House, and extends east above Massachusetts Avenue to four blocks north of the U.S. Capitol.

How much does the heroin addiction epidemic cost the community?

The most certain and tragic cost of heroin addition in 1970 was the 63 people who died of opioid overdoses. In addition, almost all heroin addicts commit crimes to support their expensive habits. Based on an estimate of 15,000 heroin addicts, and assuming an average habit of $40 per day, a recent study estimated that the annual value of property and services transferred because of addiction through robbery, theft, prostitution, drug sales, et cetera, was $328,100,000 (*6*). One of the common ways to support a habit is to sell heroin. This spreads the epidemic. The indirect costs of heroin addiction to the community from urban disorganization and fear of crime are equally staggering.

What can be done about the epidemic?

Heroin addiction is a treatable disease for most addicts. There is excellent evidence that methadone maintenance is safe and effective (7). Therapeutic communities (such as Synanon, Daytop, and Phoenix House) and community self-help organizations (such as Blackman's Development Center in Washington) offer promise of success with many addicts.

A recent study of the narcotics treatment administration program performance with 475 randomly selected patients for the 6-month period from May 15 through November 15, 1970, showed that 55 percent of all patients in the program on May 15 were still in the program 6 months later. The retention rate for high dose methadone maintenance was 86 percent after 6 months. Arrest rates were down and employment was up for the patient population. Only 7 percent of the patient population was still regularly using illegal drugs and 55 percent showed no evidence of illegal drug use during the sixth month of treatment (*8*).

Seventy-six percent of NTA patients were voluntary, self-referred walk-ins to one of the 10 NTA centers located throughout the city. Twenty-four percent were referred by agencies of the criminal justice system, such as probation and parole departments. None were civilly committed. About 100 lived in three NTA halfway houses. Seventy were residents almost always for less than 3 weeks, on two NTA detoxification wards at District of Columbia General Hospital. The remainder, about 2,600, were outpatients. Fifty-four percent were receiving methadone maintenance, 26 percent were in abstinence programs, and 20 percent were receiving decreasing doses of methadone leading to abstinence.

The unprecedented, sharp dip in the rate of serious crimes in Washington during 1970 (see fig. 5) was widely attributed to increased police presence and particularly to the effectiveness of the NTA treatment programs (*9*).

How much do treatment programs cost?

An economic study of drug addiction demonstrates that if NTA can successfully treat only 40 percent of 1,000 patients (a low estimate on the basis of performance studies) the cost of treatment for 1 year will be $1,400,000. The benefits in terms of reduced criminal activity will be $5,750,770. This shows a benefit-cost ratio of 4.1 to 1 (*6*).

On January 14, 1971, when NTA had 2,793 patients, the total cost of the program was less than $4 million a year.

REFERENCES

(1) Kozel, N., Brown, B., DuPont, R.: "Narcotics and crime: a study of narcotics involvement in an offender population." Narcotics Treatment Administration, 1971.

(2) Glendinning, S.: "District of Columbia coroner's office study." Narcotics Treatment Administration, 1970.

(3) Johnston, E. H., Goldbaum, R., Welton, R. L.: "Investigation of sudden deaths in addicts." Medical Annals of the District of Columbia, 38: 375–380, 1969.

(4) Adams, S., Meadows, D. F., Reynolds, C. W.: "Narcotic-involved inmates in the Department of Corrections." District of Columbia Department of Corrections Research Report No. 12, 1969.

(5) Robins, L. N., Murphy, G. E.: "Drug use in a normal population of young Negro men." Am. J. Publ. Hlth., 57: 1580–1596, 1967.

(6) Holahan, J.: "The economics of drug addiction and control in Washington, D.C.: a model for estimation and costs and benefits of rehabilitation." Special Report by the Office of Planning and Research of the District of Columbia Department of Corrections, 1970.

(7) Gearing, F. R.: "Successes and failures in methadone maintenance treatment of heroin addition in New York City." Presented at the Third National Conference on Methadone Treatment, Nov. 14, 1970.

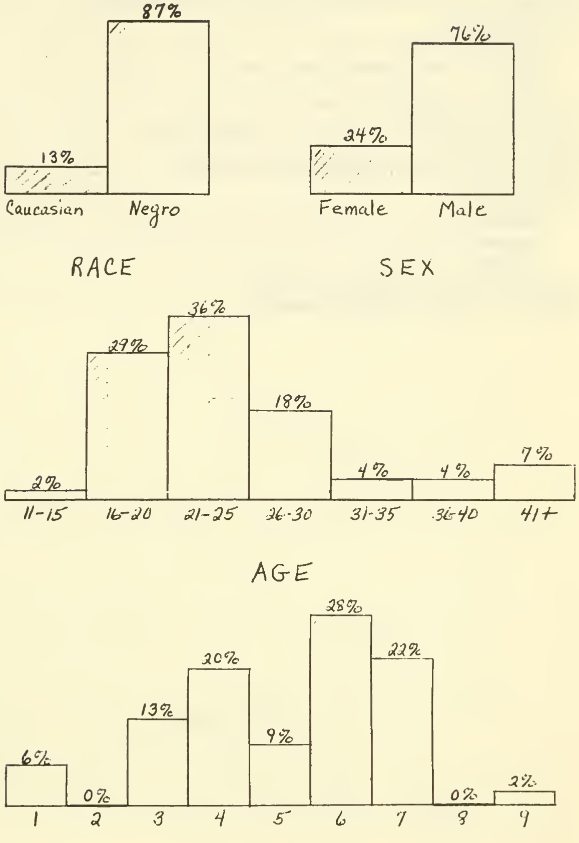
(8) Brown, B. S., DuPont, R. L.: "6-month followup of heroin addicts in a large multimodality treatment program." Narcotics Treatment Administration, 1971.

(9) DuPont, R. L.: "Urban crime and the rapid development of a large heroin addition treatment program." Presented at the Third National Conference on Methadone Treatment, Nov. 16, 1970, accepted for publication in J. Am. Med. Assoc., 1971.

Table 1.—The number of opioid overdose deaths each month from July through December 1970

July	9
August	5
September	9
October	8
November	7
December	4
Total	42
Average per month	7

Figure One. Characteristics of the Opioid Overdose Death Group



RACE

SEX

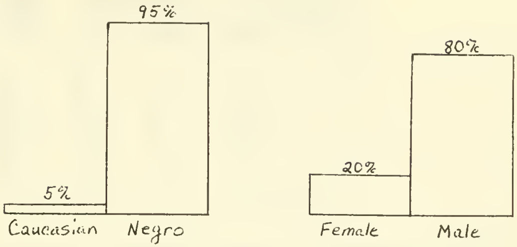
AGE

SERVICE AREA OF RESIDENCE

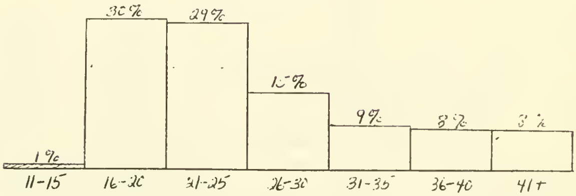
Table 2.—Selected characteristics of the NTA patient population (N=2759)

	Percent
Reporting regular heroin use prior to treatment	99
Average number of arrests reported prior to treatment	4.7
Average number of convictions reported prior to treatment	1.7
First drug used:	
Heroin	9
Marihuana	49
Heroin and marihuana in same year	7
Other	35
Average age at first heroin use	19
Voluntary admissions	76
Referred from agencies of the criminal justice system	24
Civilly committed	0
Reporting prior treatment for heroin addiction	41
Martial status:	
Single	58
Married	23
Separated	13
Divorced	4
Widowed or deserted	2
Last year of school completed, average	10.4
Receiving welfare at start of treatment	7

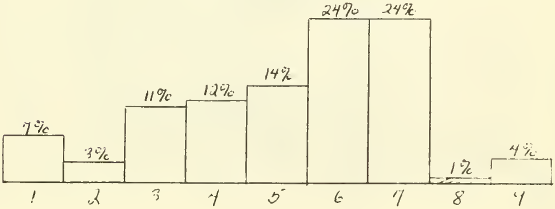
Figure Two. Characteristics of the NTA Patient Population



RACE SEX



AGE



SERVICE AREA OF RESIDENCE

TABLE 3.—HEROIN ADDICTION RATES BY SERVICE AREA

	Heroin overdose deaths from April through November, 1970		NTA clients (random sample of 500)		Estimated total number of addicts[1]	Number of addicts per 1,000 population[2]
	Number	Percent	Number	Percent		
Service area:						
1	3	6.5	33	6.6	1,109	13.3
2	0	0	17	3.4	571	10.9
3	6	13.0	55	11.0	1,848	19.9
4	9	19.6	62	12.4	2,083	18.0
5	4	8.7	71	14.2	2,385	27.7
6	13	28.3	121	24.2	4,066	40.2
7	10	21.7	121	24.2	4,066	30.8
8	0	0	2	0.4	67	0.8
9	1	2.2	18	3.6	605	14.6
Total	46	100	500	100	16,800	21.2

[1] Based on 16,800 estimate of total number of addicts distributed according to percent of NTA patients or service area.
[2] Based on 16,800 estimate of total heroin addicts and distributed according to percent of NTA patients by service area.

Note.—Service area population used were 1967 estimates.

FIGURE THREE

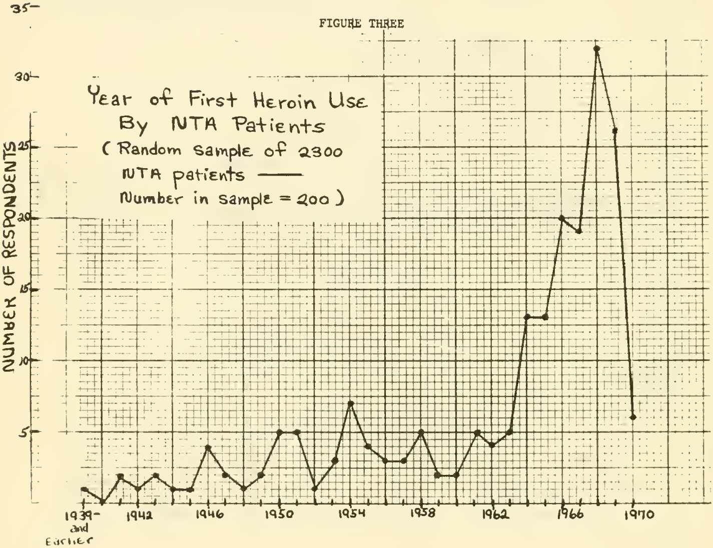


TABLE 4.—DEMOGRAPHIC AND SOCIOECONOMIC DATA BY SERVICE AREA

Item	Total	Service area—								
		1	2	3	4	5	6	7	8	9
Population, 1967	[1] [2] 793, 500	83, 300	52, 300	93, 000	116, 000	86, 100	101, 100	132, 000	86, 800	41, 400
Percent non-white	67	73	76	94	61	82	91	74	3	28
Land area	62. 74	6. 52	6. 60	7. 03	9. 93	4. 88	3. 27	4. 50	14. 59	5. 42
Density per square mile (1967 population)	12, 647	12, 776	7, 924	13, 229	11, 682	17, 643	30, 917	29, 333	5, 949	7, 638
Number of poor families [3]	57, 125	3, 965	1, 603	5, 199	4, 993	7, 638	12, 365	11, 907	4, 606	4, 849
Number of welfare cases, 1967	14, 689	748	421	1, 804	1, 815	2, 289	3, 889	2, 923	71	729
Rate per 1,000 population	18. 5	9. 0	8. 0	19. 4	15. 6	26. 6	38. 5	22. 1	8	17. 6
Juvenile court referrals (1967)	4, 122	290	185	568	558	560	1, 051	709	51	150

[1] Does not add due to rounding.

[2] 1970 District of Columbia census lists total population as 756,510. Breakdown by age, sex, and place of residence not yet available.

[3] Based upon estimates made by the Census Bureau in 1966 on Mobile Orshansky's definition of poor. 1960 population was used.

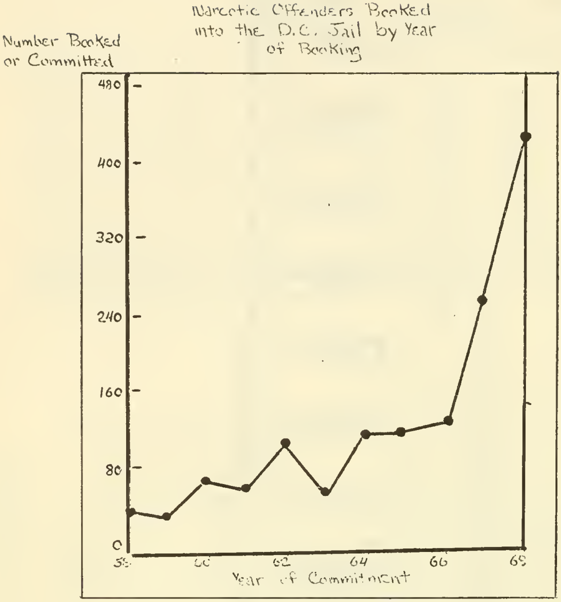


Figure Four

TABLE 5.—CITYWIDE HEROIN ADDICTION RATES BY AGE-SEX GROUPINGS[1]

[In percent]

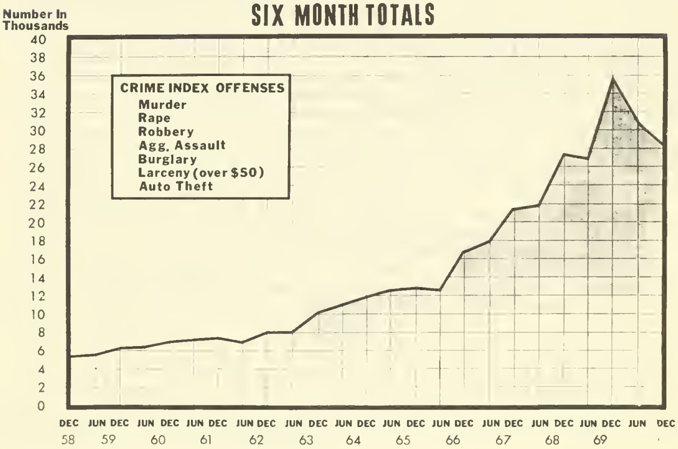
	Males	Females	Total
15 to 19	12.9	2.0	7.1
20 to 24	18.9	3.0	10.5
25 to 29	6.3	4.7	5.5
30 to 34	5.4	3.4	4.4
35 to 39	4.3	.9	2.5
40 to 44	2.5	.7	1.5
45 to 49			
50 to 54		.7	.4

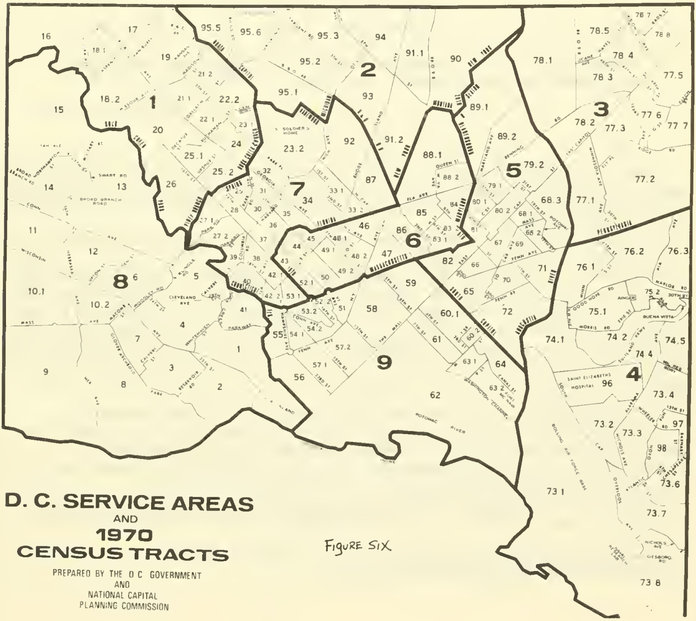
[1] Based on 1968 population statistics, age-sex distributions of 91 overdose deaths (August 1968 through November 1970), and total estimated addict population of 16,800.

FIGURE FIVE

CRIME INDEX OFFENSES 1959 THRU 1970

SIX MONTH TOTALS




1
2
3
4
5
6
7
8
9
95.5
95.6
95.3
94
95.2
91.1
90
95.1
93
89.1
78.1
78.5
78 4
78 3
77.5
78.2
77.3
77 6
77 7
77.2
77.1
89.2
79.2
88.1
88 2
91.2
92
87
23.2
18.2
22.2
22 1
20
25.1
25 2
24
26
16
17
19
15
14
13
11
12
10.1
10.2
68.3
68 1
68 2
76.2
76.3
76 1
75 2
75.1
74.1
74 2
74.5
74 4
96
73.4
73.2
73.3
97
98
73.6
73 1
73.7
73 8
85
86
47
46
59
60.1
61
62
63 1
64
63 2
65
66
67
69
70
71
72
82
84
83
58
57.2
57 1
56
55
54 1
54 2
53.2
51
41
4
5
7
3
8
9
2
POTOMAC RIVER
SAINT ELIZABETHS HOSPITAL
BOLLING AIR FORCE BASE
SOLDIER'S HOME

D. C. SERVICE AREAS
AND
1970
CENSUS TRACTS

PREPARED BY THE D C GOVERNMENT
AND
NATIONAL CAPITAL
PLANNING COMMISSION

Figure SIX

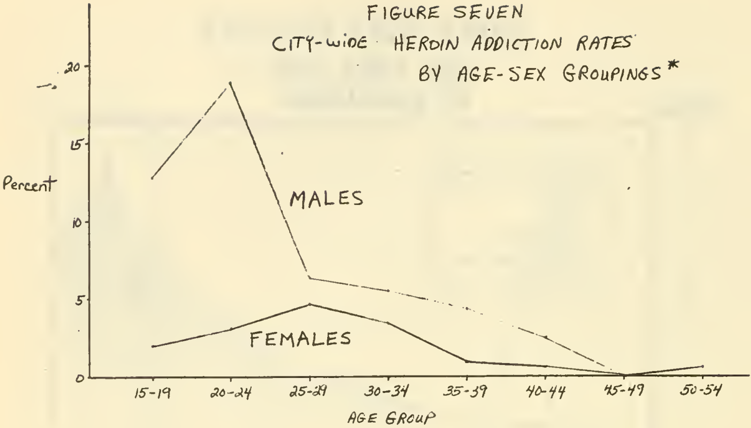


FIGURE SEVEN

CITY-WIDE HEROIN ADDICTION RATES BY AGE-SEX GROUPINGS*

* Based on 1968 population statistics, age-sex distributions of 911 overdose death (August 1968 - December 1970), and [illegible] total population of [illegible].

[Exhibit No. 11(b)]

GOVERNMENT OF THE DISTRICT OF COLUMBIA, NARCOTICS TREATMENT ADMINISTRATION, OFFICE OF THE DIRECTOR, WASHINGTON, D.C.

JANUARY 12, 1971.

SUMMARY OF 6-MONTH FOLLOWUP STUDY

There were 1,060 heroin addict patients in treatment with the Narcotics Treatment Administration on May 15, 1970. Six hundred and twenty-five (625) of these were randomly selected and followed for 6 months by the Research and Development Division of the NTA.

The Youth Division of NTA differed significantly from the adult programs and is therefore considered separately.

There were 475 patients in the adult program sample on May 15, 1970. Six months later, on November 15, 1970, 217 (46 percent) of these people were still active and reportable* with their original NTA program. In addition, 43 (9 percent) were active and reportable in other NTA programs into which they had transferred. Thus, a total of 55 percent of the clients reportable to NTA as of May 15 remained reportable to NTA 6 months later (table 1). Eighty-nine (19 percent) of these 475 had been arrested for a new charge during the 6 months followup period.

The highlights of this followup study are reported in tables 1 through 4.

It is noteworthy that there is a much higher retention-in-program rate in high dose methadone treatment than in other treatment classifications (table 1).

The high dose methadone group not only achieves this high retention rate (86 percent), but also has the lowest arrest rate (12 percent) (table 2).

The arrest data was also examined comparing the arrest rate of individuals in the NTA programs with the arrest rate of those who left the program. The former had an arrest rate of 2.8 percent per patient-month of treatment while the latter (the dropouts) had an arrest rate of 5.7 percent per month after leaving the program.

---

*A patient is "reportable" if he has been seen at least four times in the 14 consecutive calendar days preceding the weekly NTA census.

Table 3 reports arrest rates after 6 months in the community for heroin addicts released from the Department of Corrections before the start of NTA in 1970. This table is included for comparison purposes.

Tables 4 and 5 contain data on employment rates and dirty urine rates. Both are encouraging but suggest the need for increased counseling and job placement.

The 150 patients in the youth program fared less well (see client's functioning in the Youth Division programs—May 15, 1970—Nov. 15, 1970). Only 1 percent of these youths received methadone maintenance treatment while an additional 10 percent received either methadone detoxification or emergency short-term methadone treatment (methadone hold). Thus 89 percent of the sample never received methadone. Forty-two percent of the youth clients were arrested during the course of the 6-month followup. Sixty of the 150 youths remained in the program after 6 months (40 percent retention rate) but only 18 of these were still giving regular urine samples (12 percent of 150).

The results of the Youth Division program were generally similar to the results of the abstinence programs for adults. The results of the abstinence programs are not as encouraging as the results from high dose methadone maintenance treatment. However, it must be emphasized that while there were many failures in the abstinence programs there were at least a few apparent successes—for example while 42 percent of the youths were arrested during the 6 months followup, 58 percent were not arrested.

This summary relates to NTA's performance with patients who were in the program from May 15 through November 15, 1970. Since May 15, there have been some improvements in our programs and a great enlargement. On January 8, 1971, NTA had 2,670 reportable patients. Of this total 1,402 receiving methadone maintenance treatment, 526 were on methadone detoxification, and 35 were on emergency doses of methadone (methadone hold). Thus 1,963 (74 percent) were receiving methadone and 707 (26 percent) were abstinent.

TABLE 1.—RETENTION IN ADULT PROGRAMS BY TREATMENT RECEIVED MAY 15 TO NOVEMBER 15

	Abstinence	Percent	Methadone detoxification	Percent	Maintenance				Total methadone maintenance	Percent	Total	Percent
					59 mgms. or less	Percent	60 mgms. or more	Percent				
Still in original program	(11)	12	(24)	39	(34)	29	(148)	72	(182)	56	217)	46
In other NTA programs	(3)	3	(1)	2	(10)	9	(29)	14	(39)	12	(43)	9
Left NTA	(77)	85	(36)	59	(72)	62	(30)	14	(102)	32	(215)	45
Total	(91)	100	(61)	100	(116)	100	(207)	100	(323)	100	(475)	100

TABLE 2.—ARRESTS IN ADULT PROGRAMS BY TREATMENT RECEIVED, MAY 15, TO NOV. 15

	Abstinence	Percent	Methadone detoxification	Percent	Maintenance: 59 mgms. or less	Percent	Maintenance: 60 mgms. or more	Percent	Total methadone maintenance	Percent	Total	Percent
Returned to jail for noncompliance	(5)	5	(0)	0	(1)	1	(0)	0	(1)	[1]	(6)	1
Arrested, new charge	(28)	31	(13)	21	(24)	21	(24)	12	(48)	15	(89)	19
Not arrested	(58)	64	(48)	79	(91)	78	(183)	88	(274)	84	(380)	80
Total	(91)	100	(61)	100	(116)	100	(207)	100	(323)	100	(475)	100

[1] Less than 1 percent.

TABLE 3.—COMPARATIVE ARREST RATES FOR CLIENTS ASSOCIATED WITH NTA AND WITH THE DISTRICT OF COLUMBIA DEPARTMENT OF CORRECTIONS FOR A 6 MONTHS PERIOD

	NTA clients in adult programs	Percent	D.C.D.C. clients	Percent	DATRC clients	Percent
Arrested	(89)	18.7	(38)	35.8	(10)	27.8
Not arrested	(386)	81.3	(68)	64.2	(26)	72.2
Total	(475)	100.0	(106)	100.0	(36)	100.0

TABLE 4.—EMPLOYMENT STATUS IN ADULT PROGRAMS BY TREATMENT RECEIVED AS OF NOV. 15[1]

	Abstinence	Percent	Methadone detoxification	Percent	Maintenance				Total methadone maintenance	Percent	Total	Percent
					59 mgms. or less	Percent	60 mgms. or more	Percent				
Employed full time	(8)	80	(10)	42	(16)	47	(65)	44	(81)	45	(99)	46
Student or job training, full time	(1)	10	(0)	0	(0)	0	(11)	8	(11)	6	(12)	6
Employed, student or job training, full time	(9)	90	(10)	42	(16)	47	(76)	52	(92)	51	(111)	52
Employed part time	(0)	0	(0)	0	(0)	0	(6)	4	(6)	3	(6)	3
Employed or student full or part time	(9)	90	(10)	42	(16)	47	(82)	56	(98)	54	(117)	55
Unemployed	(1)	10	(14)	58	(18)	53	(65)	44	(83)	46	(98)	45
Total	(10)	100	(24)	100	(34)	100	(147)	100	(181)	100	[2] (215)	100

[1] For clients still enrolled in original program only.

[2] Does not include 1 hospitalized client and 1 client whose employment status was unknown.

TABLE 5.—ILLICIT DRUG USAGE IN ADULT PROGRAMS BY TREATMENT RECEIVED DURING THE 1 MONTH PERIOD, OCT. 15 TO NOV. 15[1]

	Abstinence	Methadone detoxification	Percent	Maintenance				Total methadone maintenance	Percent	Total	Percent
				59 mgms. or less	Percent	60 mgms. or more	Percent				
All tests positive	(0)	(1)	4	(3)	8	(11)	7	(14)	7	(15)	7
Some tests positive; some negative	(3)	(10)	40	(15)	43	(55)	38	(70)	39	(83)	38
All tests negative	(8)	(14)	56	(17)	49	(80)	55	(97)	54	(119)	55
Total	(11)	(25)	100	(35)	100	(146)	100	(181)	100	(217)	100

[1] Includes only those clients remaining in original program after 6 months.

[Exhibit No. 11(c)]

DR. DUPONT'S NUMBERS

Of 1,060 patients in NTA on May 15, 1970, 450 were randomly selected for followup.

Of these 450, 56 percent remained in the program for 6 months, and 40 percent remained for 11 months.

Of those on methadone maintenance, 86 percent remained 6 months as compared to 15 percent who received no methadone (or were abstinent).

After 11 months, 22 percent of the 450 were rearrested. Of the people who remained in the program, 13 percent were rearrested. Of those who dropped out, 28 percent were rearrested in 11 months.

In the last 8 months, 23 people have died of overdoses with methadone. Only five of these got their methadone from NTA.

[Exhibit No. 11(d)]

ADMINISTRATION ORDER

1. PURPOSE

The purpose of this administration order is to provide medical and program guidelines for methadone treatment in Narcotics Treatment Administration programs and cooperating programs.

2. DEFINITIONS

New admissions are persons who have no previous record in Information Central.

Readmissions have been previously known by NTA central information but their cases have been deactivated.

Reportable patients are defined as patients who have been seen at least four times in the preceeding 14 consecutive calendar days.

Reportable patients will be considered to be in one of the following four categories:

1. Abstinence
2. Methadone maintenance
3. Methadone detoxification.
4. Methadone hold.

Nonreportable patients are seen at least once in the preceding 28 days but do not qualify as reportable.

Transfers are any patients known to Information Central who undergo an approved change in treatment centers.

Inactive patients are defined as those who have no face-to-face contact during the preceding 28 days.

Abstinence is defined as any continuing treatment contact with the Narcotics Treatment Administration program or cooperating program in which the individual patient does not receive methadone.

Methadone maintenance is a treatment classification to be used for all patients who receive regular doses of methadone when the dose of methadone is not consistently reduced. That is, any patient who receives a regular dose of methadone at the same dose level or increasing dose level is to be considered a methadone maintenance patient.* All patients in the methadone maintenance category should be urged to stay on methadone maintenance until their life situations have been stabilized for a period of 6 months to 1 year or longer. Any patient who comes off methadone maintenance should be strongly urged to stay in the treatment program while he is being detoxified and after he is abstinent for a period of not less than 2 months. During this time, urine testing and counseling should continue while the patient is considered an "abstinence patient." If there are signs of renewed drug hunger and the patient feels he cannot control this urge, or if there are signs of renewed drug use, the patient should be encouraged to return to methadone maintenance treatment for another prolonged period of time. Experience has shown that patients who stop methadone maintenance have a high relapse rate, especially if they have been on the methadone maintenance program less than a year. Therefore, every effort should be made on the part of program staff to retain patients in continuing treatment for a period of weeks or months after the patient begins a detoxification program. Patients in methadone maintenance should be treated with regular doses of methadone between 80 and 120 milligrams a day. Dose levels less than 80 minigrams are discouraged because of the likelihood of continued drug abuse. Doses above 120 milligrams are to be discouraged because it is unlikely that they will produce additional benefits to the patient. Under no circumstances are patients to be given more than 150 milligrams of methadone a day.

---

* The only exceptions to this definition are the special youth detoxification schedules which have a period of increasing doses, a plateau, and a programed detoxification within 6 months of the first dose.

Methadone detoxification should in no circumstances be prolonged for more than 3 months. A patient on detoxification should not receive more than 50 milligrams a day unless he is being detoxified from methadone maintenance. The physician in charge of the patient's treatment should establish a schedule for gradually decreasing doses with abstinence to be achieved between 2 weeks and 3 months after the start of methadone detoxification. Urine results must be monitored carefully in this group because of a strong likelihood that they will experience renewed drug hunger and return to illegal drug use, particularly at dose levels below 40 milligrams a day. Evidence of renewed illegal drug use or drug craving beyond the individual patient's ability to control it are indications for the patient's going on methadone maintenance. Under no circumstances should a person be classified as methadone detoxification for more than 3 months.

Methadone hold patients are classified in this group if they are given doses of methadone on an emergency basis prior to appropriate examination, diagnosis and disposition. Under no circumstances should a patient be retained in the methadone hold category for more than 2 weeks.

Authorized medical representatives. Only physicians can sign prescriptions. Others, including nurses, medical assistants etc., may dispense methadone and sign NTA Form 6 (attachment 5).

3. POLICY

Because people who are addicted to heroin often have many psychological and vocational problems requiring vigorous and effective treatment, NTA's goal for each patient is social rehabilitation. Methadone treatment must be considered within this context as only one part of the total treatment program.

The heroin addict patient may suffer from a number of medically treatable illnesses and for each of these, of course, the appropriate medical treatment is indicated. For example the heroin addict may have clinical schizophrenia with the common symptoms of that illness. In this case, the most appropriate medical treatment includes a phenothiazine.

Nevertheless, the only drug that has been shown to be useful in the treatment of heroin addiction itself is methadone. Therefore, no other drug should be prescribed for treatment of heroin addiction. For example, there is no evidence that tranquilizers or hypnotics are useful in the treatment of heroin addiction or heroin withdrawal. Furthermore, these drugs are specifically contraindicated in the treatment of heroin addicts since they are likely to become drugs of abuse in their own right. This is particularly true of the hypnotics (such as seconal and doriden) but it is also true of the antianxiety tranquilizers (such as librium and meprobamate). The heroin addict has, in part, gotten himself in serious trouble because of his tendency to medicate himself and to treat his unpleasant feelings with a variety of drugs, especially heroin. Therefore, the physician dealing with heroin addicts can anticipate requests from the addict for medications of all kinds. The doctor should be armed with the knowledge that no tranquilizer or hypnotic has been shown to be useful in the treatment of heroin addiction. He should share this information with the patient. However, the physician should avoid routine use of either type of drug. The physician should never prescribe these drugs for more than a few days because of the likelihood of producing dependence on, or even addiction to, these drugs.

Methadone maintenance, on the other hand, has been demonstrated to be effective in achieving specific results. The primary drug result is blocking the "drug craving" which usually occurs at a dosage of about 40 to 50 milligrams a day. When maintenance levels reach about 100 milligrams a day, there is an additional important drug effect: the suppression of euphoria from intravenously administering heroin. These are the two effects that are most desirable in the use of methadone maintenance for chronic heroin addiction. Methadone maintenance does not produce the suppression of all anxiety, depression, or other uncomfortable bodily feelings. Neither the addict nor the doctor should expect these results.

Methadone in adequate doses, blocks the drug hunger for heroin and the high of heroin. It does not alter other forms of drug abuse. Therefore, the clinician should be watchful for signs of other drug abuse such as amphetamine, barbiturate, and most especially alcohol abuse. Each of these conditions is serious and requires prompt, appropriate, and vigorous treatment.

4 PROCEDURES

Methadone may be used in three treatment categories: methadone maintenance, methadone detoxification, and methadone hold. The following are individual discussions of each:

I. Methadone Maintenance

A. Indications for methadone maintenance

The indications for methadone maintenance are:

1. The patient volunteers for methadone maintenance;
2. The patient has used heroin continuously for at least one (1) year;
3. The patient is at least eighteen (18) years old. (Exceptions to this ruling are discussed in section I, I. Methadone Maintenance Treatment for Youth.)

B. Preparing the patient for methadone maintenance treatment

Methadone maintenance treatment is entirely voluntary for all patients. No one should be forced or coerced into methadone maintenance. If the patient expresses the desire to go on methadone maintenance, the implications of treatment must be carefully and completely explained to him.

Prospective methadone maintenance patients should be encouraged to think of it as, at least, a 6-month commitment to continue the treatment. For most patients it makes sense to continue methadone maintenance for years until their social, psychological, and biological life has been satisfactorily stabilized. The preliminary results of our investigations into program performance indicate that the premature discontinuance of methadone maintenance and dose levels under 80 milligrams per day are often associated with the patient's return to heroin addiction and criminal behavior.

C. Consent to take methadone maintenance treatment

Before beginning methadone maintenance treatment, each patient must sign NTA Form 19 "Informed Consent to Take Methadone Treatment" (see attachment 1). If a patient is under 21, every effort should be made to get either a parent or guardian signature on the consent form, although this may not be possible or practical in every case. In addition, NTA Form 7 (see attachment 2) must be completed on each patient and registered with Information Central before any medication or treatment services are provided.

D. Dose level

For all NTA treated patient's receiving methadone maintenance treatment, the physician should attempt to give a "blocking" dose of 80 to 120 milligrams a day. There is good reason to believe that lower doses are associated with significantly higher failure rates and that lower doses do not produce any advantage to the patient.

Methadone maintenance programs have been shown to be effective only when methadone is used in a specific manner. The drug is given to the patient once a day, and the patient's dose is modified on the basis of his response to the medication. The initial dose level should be moderate, in the range of 20 to 50 milligrams.

NTA medication schedules (see attachment 3) provide all necessary information for raising or lowering doses, depending on the treatment indicated, by age, size and duration of habit, et cetera. Since the duration of action of methadone is 24 to 48 hours, the drug lends itself to daily administration.

The dose level should be increased to a level of about 100 milligrams a day in those patients who can tolerate this dose level without excessive drowsiness or other side effects. This increase should occur gradually over a 3- to 6-week period.

Patients are not to be told their dose level since this leads to an unhealthy "competition" among the patients for the highest doses. Dose level is a medical issue and it should be managed by the medical staff.

E. Side effects of methadone

Side effects of methadone include excessive sweating, constipation, edema, drowsiness, dermatitis, and relative impotence in men. None of these symptoms are serious, and, with the exception of excessive sweating, they usually disappear as treatment is continued and tolerance is attained. However, some patients continue to suffer from constipation. This can be treated symptomatically with a laxative, but even this is usually not needed once a tolerance develops.

F. Take-home medication

Methadone is to be administered to the patient daily (6 or 7 days per week depending on the number of days the center is opened) on the premises of an NTA facility for the first 3 months of his treatment. Once the patient's drug use has ceased for at least 1 month and he has demonstrated stability in his life patterns, he may take home his weekend medication at the discretion of the appointed person in charge and after signing NTA Form 22 "Statement of Responsibility for Take-Home Medication" (see attachment 4).

Individual doses to take off NTA premises must be properly labeled with the patient's name, the date the dose is to be taken, and the specific program name and telephone number. The label must also state that the bottle contains methadone and that it is dangerous and may be fatal if taken by anyone other than the patient.

Patients are to return all empty bottles before new bottles are given. If the patient fails to return his bottle, loses or breaks it, or reverts to drug use, he will be required to report in daily again for at least 4 weeks.

Because methadone may be fatal when taken by a nonaddicted person in doses conventionally given to methadone maintenance patients, patients taking medication home must keep it in the locked container provided by the center. The fact that methadone is packaged in a liquid form makes it particularly attractive to children. The patient must be impressed with the danger involved in taking medication home and be strongly encouraged not only to lock up his methadone, but to place it out of children's reach.

In addition, the patient should be reminded that methadone should not be refrigerated.

G. Urine testing

Every methadone maintenance patient must submit a monitored urine specimen a minimum of once a week.

These urine collections must be monitored by an NTA staff member or a staff member of a cooperating program under the general direction of the program chief. Unmonitored specimens are worthless for our purposes and should be discarded.

All staff who are monitoring urine should sign the urine specimen label found on the back of NTA form 6 (see attachment 5). These staff members should be trained so they recognize an adequate quantity of urine. No urines should be reported back from the laboratory as quantity not sufficient (QNS); the staff should discard urines of inadequate quantity.

In unusual cases, or where there is special concern about the possibility of patients continuing to use illicit drugs, three or more samples a week may be sent to the laboratory for analysis.

H. Suspension from methadone maintenance program

Patients failing to report for treatment for 30 consecutive days will automatically be suspended from treatment. The suspended patient will have to wait 30 days before he is eligible for treatment or the waiting list again.

If the center physician and/or the center administrator suspends a patient before 30 consecutive days without treatment have elapsed, the physician or administrator must complete NTA form 9 "*Report of Patient Change of Status*" (see attachment 6) and send it to Information Central. In this case, the patient will not be accepted back into treatment or placed on the waiting list for 30 days after the suspension date.

I. Methadone maintenance treatment for youth

For purposes of treatment planning (as opposed to legal considerations regarding consent) patients are considered adults if they are 18 or over.

Individuals who are less than 18 may receive methadone on short or long detoxification schedules (none longer than 6 months) after notifying the director of NTA.

In the future, NTA may try an experimental maintenance program for youth under 18 but our experience is too limited to make a final decision on that issue at this time.

II. Outpatient Methadone Detoxification

A. Eligibility

Outpatient methadone detoxification should be attempted with the following:

1. Any patient who has a history of less than 1 year addiction to heroin; or
2. Any patient who is under 18 years of age; or
3. Any patient who requests this treatment.

B. Dose level

Methadone detoxification should begin by "catching" the addict's habit, usually with doses in the range of 20 to 50 milligrams per day. (See medication schedules, attachment 3.)

Initially, this may require doses more than once a day until the proper dose level is achieved so that the patient does not experience withdrawal symptoms (too little methadone) or excessive drowsiness (too much methadone). This holding dose should then be reduced very gradually over a 2 to 12-week period. Drug hunger should be anticipated at dosages of less than 40 milligrams per day.

C. Urine testing

Regular urine testing and monitoring should be followed as in the methadone maintenance program. (See section I, A for details.)

Reemergence of regular heroin use is a sign of withdrawal treatment failure. If this occurs, the patient should be encouraged to switch to a methadone maintenance program (if he is eligible) at blockading doses of about 100 milligrams per day.

D. Exceptions

If a patient fails at outpatient withdrawal even if he has used heroin for less than 1 year or if he is less than 18 years, he may be considered for methadone maintenance if he volunteers for this treatment. However, under these circumstances, the director of the NTA must be notified of each such exceptional patient.

III. Physical Examinations

Every patient receiving methadone must have a physical examination performed by a physician within 30 days after the first dose of methadone. Physical exams should occur as soon as possible.

IV. Records

A. Medical records

Patients who take methadone must have physical examinations and medical histories performed by a licensed physician or medical student working under the supervision of a physician. The results of these examinations must be included in the patient's clinical record and the date of physical examination must also be noted on NTA Form 10 (see attachment 7.)

Form 10 "Record of Patient Prescription" must also be used by the physician to record all new NTA patients' medical treatment, or major changes in treatment of an existing NTA patient.

B. Accountability of methadone

Each bottle of methadone liquid (1,000 cc.) disbursed to the centers for patient treatment will contain an envelope showing the same registered number as that appearing on the label affixed to the bottle.

Everytime a patient has received a dose of methadone, a copy of NTA form 6, "Record of Patient Activity," (see attachment 5) used to record the amount of methadone disbursed, will be filed in the envelope containing the same registered number as that on the bottle. When the large bottle is emptied, the envelope containing the NTA forms 6, showing total disbursements (1,000 cc.) will be sealed and returned to Information Central via messenger. The forms in the envelope will tell the pharmacist the date, the dosage level, and names of the patients who were served out of that particular bottle. All doses of methadone dispensed must be strictly accounted for at all times.

C. Discrepancies

NTA form 14, "Director's Discrepancy Notice" (see attachment 8) will be used to notify the physician of any discrepancies in recordkeeping or NTA procedures as noted by the computer.

The following are some items which may be noted:

1. Dosage level higher than that prescribed by the physician.
2. Irregular dosage level.
3. Consistently dirty urine.
4. No physical examinations within 30 days of initial intake.
5. Discrepancy in methadone medication disbursement.
6. Lack of proper patient evaluation.
7. Apparent lack of patient progress.
8. Exception to take-home medicine policy.

D. Confidentiality of records

The Narcotics Treatment Administration respects the basic right of patients to have all information and treatment records maintained with strict confidentiality. NTA regards this effort as vital to the establishment of an effective treatment relationship with its patients.

For this reason, only Information Central is authorized to release information on patients to vertified requestors. With the exception of criminal justice and civil commitment patients and patient-employees, no information on any patient will be released unless:

1. The patient has signed and Information Central has received NTA form 28 "Patient Consent for Release of Treatment Information" (see attachment 9) specifically authorizing the requestor access to information:
2. Information Central has received the request for information in writing; and
3. Information Central has verified the current status of the patient vis-a-vis the requestor.

Criminal justice system patients are those who have been formally referred to NTA by the police, courts, Department of Corrections, or parole board as a condition of release to the community. Requests for information on these patients by the agency must be honored immediately by the program chief or his designee. The request and the response should preferably be made in writing and the current status of the patient vis-a-vis the requestor verified before the information is released. Information should be released in the form of treatment summaries whenever possible.

Civil commitment patients are those brought to an NTA facility under signed pickup orders by the Narcotics Squad of the Metropolitan Police Department. The results of their diagnostic evaluation and determination of their treatment status is automatically forwarded to the referring agency—the Metropolitan Police Department.

Patient-employees are staff members of NTA who also remain in a treatment status with NTA. They will be required, as a condition of employment, to remain free of illegal drugs, and must agree to release information on their urine surveillance reports and pertinent medical summaries to their immediate supervisors, program unit chiefs, and the coordinator of counselors. Such information will not be shared with other staff members but can be used as a basis for disciplinary action or suspension of employment if confrontation does not result in termination of illegal drug use.

Minors under 21 years of age should be encouraged to authorize a parent or guardian to receive at least a summary statement of their treatment status.

Emergencies arising when an NTA patient is confined because of arrest, illness, or accident will receive immediate attention. Every effort will be made to assure the patient immediate medical assistance to maintain his medication level for the duration of the emergency upon request from the medical authorities attending the patient.

Attachment One

INFORMED CONSENT TO TAKE METHADONE TREATMENT IN THE NARCOTICS TREATMENT ADMINISTRATION

I, ____________________, understand that methadone treatment for chronic heroin addiction and its consequences is a new use of an established drug. I further understand that methadone is a powerful and addictive narcotic drug and that if I stop taking it I will experience serious withdrawal symptoms. Although methadone treatment has been used successfully by thousands of people throughout the country, I also understand that the long-term effect of this drug on humans is not entirely known at this time.

I willingly give my informed consent to take methadone under the careful supervision and control of the NTA staff or NTA cooperating agency staff. I have tried to stop using illegal drugs and I now think that methadone is necessary for me to avoid further use of illegal drugs.

I have not been forced or pressured into this decision. I understand that I can stop methadone treatment at my own discretion and that the staff may terminate me at their discretion. If I do stop methadone treatment for any reason, I understand that for my own safety I should withdraw from methadone by using gradually reduced doses of the medication under the control of the medical staff.

____
Signature and date

____
Printed or typed name

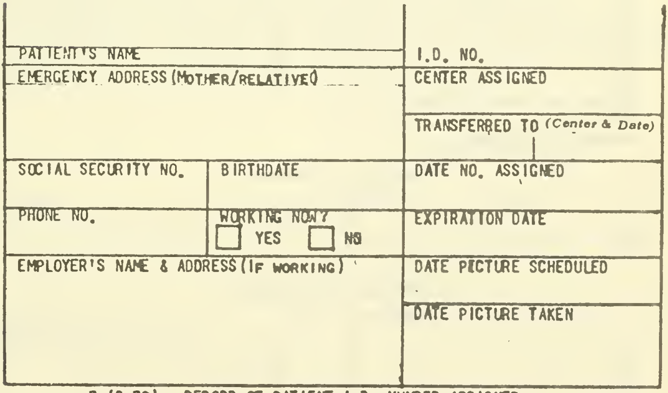
____
NTA patient number

____
Program name

Witness ____________________________
Signature and date

NTA FORM 19 (10–70).

ATTACHMENT TWO



PATIENT'S NAME		I.D. NO.
EMERGENCY ADDRESS (MOTHER/RELATIVE)		CENTER ASSIGNED TRANSFERRED TO (Center & Date)
SOCIAL SECURITY NO.	BIRTHDATE	DATE NO. ASSIGNED
PHONE NO.	WORKING NOW? ☐ YES ☐ NO	EXPIRATION DATE
EMPLOYER'S NAME & ADDRESS (IF WORKING)		DATE PICTURE SCHEDULED DATE PICTURE TAKEN

NTA FORM 7 (8-70) RECORD OF PATIENT I.D. NUMBER ASSIGNED

ATTACHMENT THREE

To all medical staff

On schedules 10, 11, and 12, the value of X (the initial dose) must be specified on the initial prescription along with which schedule is being used.

On schedule 12, it must be specified at what does the schedule stops.

Detoxification schedule 1

Day:	*Milligrams*	Day:	*Milligrams*
1	20	11	10
2	20	12	10
3	20	13	10
4	15	14	5
5	15	15	5
6	15	16	5
7	15	17	5
8	15	18	5
9	10	19	0
10	10	20	(1)

[1] Detoxification completed.

Detoxification schedule 2

Day:	*Milligrams*	Day:	*Milligrams*
1	50	27	25
2	50	28	25
3	50	29	25
4	50	30	25
5	50	31	20
6	45	32	20
7	45	33	20
8	45	34	20
9	45	35	20
10	45	36	15
11	40	37	15
12	40	38	15
13	40	39	15
14	40	40	15
15	40	41	10
16	35	42	10
17	35	43	10
18	35	44	10
19	35	45	10
20	30	46	5
21	30	47	5
22	30	48	5
23	30	49	5
24	30	50	5
25	30	51	(1)
26	25		

[1] Detoxification completed.

Detoxification Schedule 3

Day:	*Milligrams*	Day:	*Milligrams*
1	20	43	5
15	15	50	0
29	10		

Detoxification Schedule 4

Day:	*Milligrams*	Day:	*Milligrams*
1	30	57	10
15	25	71	5
29	20	85	0
43	15		

Maintenance Schedule 10

Day:		Day:	
1	X mgs.	10	X+20 mgs.
2	X mgs.	11	X+25 "
3	X+5 mgs.	12	X+25 "
4	X+5 mgs.	13	X+30 "
5	X+10 "	14	X+30 "
6	X+10 "	15	X+35 "
7	X+15 "	16	X+35 "
8	X+15 "	17	X+40 "
9	X+20 "	18	X+40 "

To 100 mgs. total or until otherwise stopped by adding 5 mgs. to dose every other day.

Maintenance Schedule 11

Day:		Day:	
1	X mgs.	7	X+10 mgs.
2	X mgs.	8	X+10 mgs.
3	X mgs.	9	X+10 mgs.
4	X+5 mgs.	10	X+15 mgs.
5	X+5 mgs.	11	X+15 mgs.
6	X+5 mgs.	12	X+15 mgs.

To 100 mgs. total by increasing by 5 mgs. every third day or until stopped by prescription.

Maintenance Schedule 12

Day:		Day:	
1	X mgs.	22	X+15 mgs.
8	X+5 mgs.	29	X+20 mgs.
15	X+10 mgs.		

ATTACHMENT FOUR

STATEMENT OF RESPONSIBILITY FOR TAKE HOME MEDICATION

I, ______________________, understand that methadone is a powerful drug which can seriously harm or even kill a person who is not on methadone maintenance. For this reason, I agree to put my methadone bottle in a locked container, out of children's reach. I also agree to tell my family how dangerous methadone can be and take all necessary precautions to prevent its accidental use.

In addition, I understand that I must not lose, break or fail to return my methadone bottle to the clinic or revert to drug use. If I do, I will not be able to take methadone home but will have to report into the clinic daily for at least 30 days.

____
Patient signature and date

____
Printed or typed name

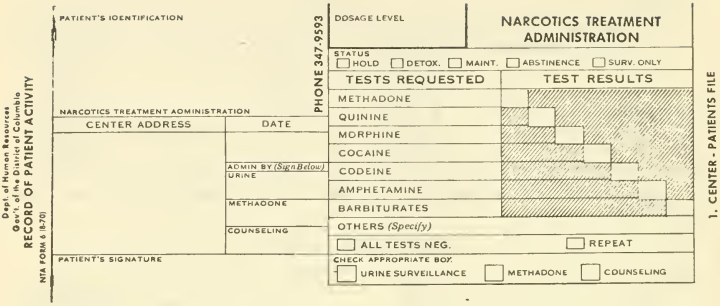
____
ID number

____
Program name

____
Clinic administrator, physician
or nurse signature and date

NTA Form 22 (11–70).

ATTACHMENT FIVE



Dept. of Human Resources
Gov't. of the District of Columbia
RECORD OF PATIENT ACTIVITY
NTA FORM 6 (8-70)

PATIENT'S IDENTIFICATION

NARCOTICS TREATMENT ADMINISTRATION

PHONE 347-9593

CENTER ADDRESS	DATE
	ADMIN BY *(Sign Below)* URINE
	METHADONE
	COUNSELING

PATIENT'S SIGNATURE

DOSAGE LEVEL

NARCOTICS TREATMENT ADMINISTRATION

STATUS
☐ HOLD ☐ DETOX. ☐ MAINT. ☐ ABSTINENCE ☐ SURV. ONLY

TESTS REQUESTED	TEST RESULTS
METHADONE	
QUININE	
MORPHINE	
COCAINE	
CODEINE	
AMPHETAMINE	
BARBITURATES	

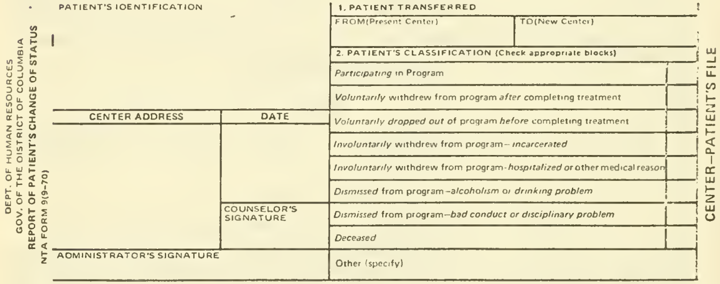
OTHERS *(Specify)*

☐ ALL TESTS NEG. ☐ REPEAT

CHECK APPROPRIATE BOX
☐ URINE SURVEILLANCE ☐ METHADONE ☐ COUNSELING

1. CENTER - PATIENTS FILE

ATTACHMENT SIX



DEPT. OF HUMAN RESOURCES
GOV. OF THE DISTRICT OF COLUMBIA
REPORT OF PATIENT'S CHANGE OF STATUS
NTA FORM 9(9-70)

PATIENT'S IDENTIFICATION

CENTER ADDRESS	DATE
	COUNSELOR'S SIGNATURE

ADMINISTRATOR'S SIGNATURE

1. PATIENT TRANSFERRED

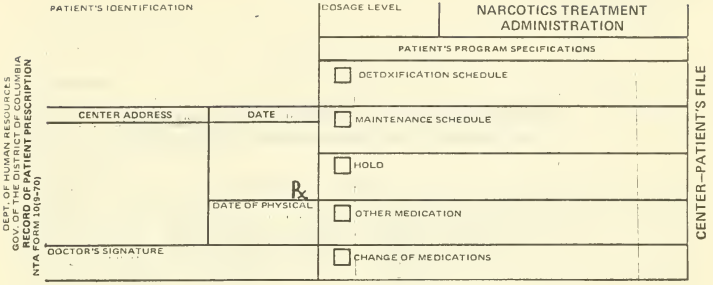
FROM(Present Center)	TO(New Center)

2. PATIENT'S CLASSIFICATION (Check appropriate blocks)

- *Participating* in Program ☐
- *Voluntarily* withdrew from program *after* completing treatment ☐
- *Voluntarily dropped out* of program *before* completing treatment ☐
- *Involuntarily* withdrew from program – *incarcerated* ☐
- *Involuntarily* withdrew from program - *hospitalized* or other medical reason ☐
- *Dismissed* from program – *alcoholism* or *drinking problem* ☐
- *Dismissed* from program – *bad conduct or disciplinary problem* ☐
- *Deceased* ☐
- Other (specify)

CENTER–PATIENT'S FILE

ATTACHMENT SEVEN



DEPT. OF HUMAN RESOURCES
GOV. OF THE DISTRICT OF COLUMBIA
RECORD OF PATIENT PRESCRIPTION
NTA FORM 10(9-70)

PATIENT'S IDENTIFICATION

DOSAGE LEVEL

NARCOTICS TREATMENT ADMINISTRATION

PATIENT'S PROGRAM SPECIFICATIONS

☐ DETOXIFICATION SCHEDULE

CENTER ADDRESS

DATE

☐ MAINTENANCE SCHEDULE

☐ HOLD

℞

DATE OF PHYSICAL

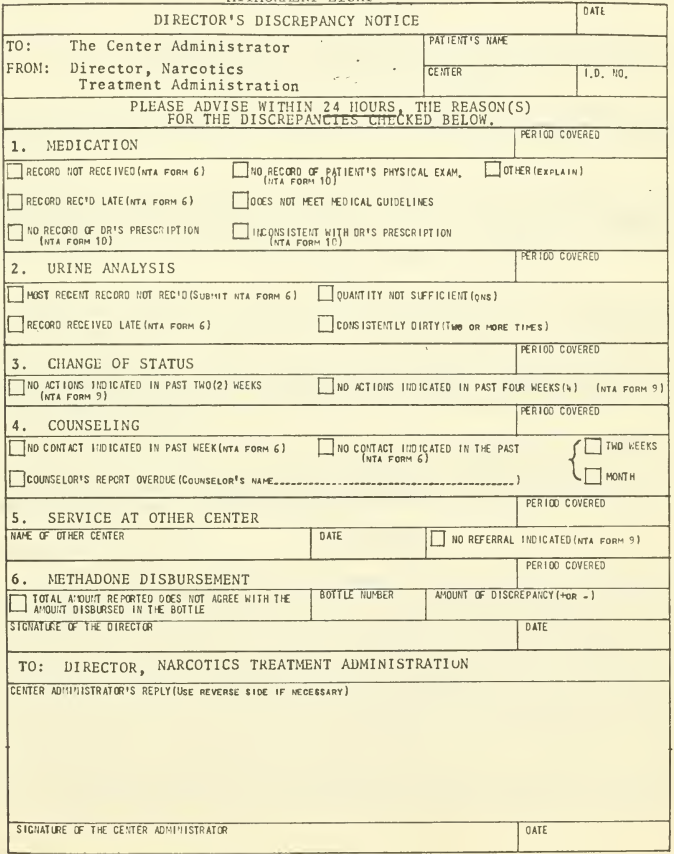
☐ OTHER MEDICATION

DOCTOR'S SIGNATURE

☐ CHANGE OF MEDICATIONS

CENTER–PATIENT'S FILE

ATTACHMENT EIGHT



DIRECTOR'S DISCREPANCY NOTICE

DATE

TO: The Center Administrator
FROM: Director, Narcotics Treatment Administration

PATIENT'S NAME

CENTER

I.D. NO.

PLEASE ADVISE WITHIN 24 HOURS, THE REASON(S) FOR THE DISCREPANCIES CHECKED BELOW.

1. MEDICATION — PERIOD COVERED

☐ RECORD NOT RECEIVED (NTA FORM 6)
☐ RECORD REC'D LATE (NTA FORM 6)
☐ NO RECORD OF DR'S PRESCRIPTION (NTA FORM 10)
☐ NO RECORD OF PATIENT'S PHYSICAL EXAM. (NTA FORM 10)
☐ DOES NOT MEET MEDICAL GUIDELINES
☐ INCONSISTENT WITH DR'S PRESCRIPTION (NTA FORM 10)
☐ OTHER (EXPLAIN)

2. URINE ANALYSIS — PERIOD COVERED

☐ MOST RECENT RECORD NOT REC'D (SUBMIT NTA FORM 6)
☐ RECORD RECEIVED LATE (NTA FORM 6)
☐ QUANTITY NOT SUFFICIENT (QNS)
☐ CONSISTENTLY DIRTY (TWO OR MORE TIMES)

3. CHANGE OF STATUS — PERIOD COVERED

☐ NO ACTIONS INDICATED IN PAST TWO (2) WEEKS (NTA FORM 9)
☐ NO ACTIONS INDICATED IN PAST FOUR WEEKS (4) (NTA FORM 9)

4. COUNSELING — PERIOD COVERED

☐ NO CONTACT INDICATED IN PAST WEEK (NTA FORM 6)
☐ NO CONTACT INDICATED IN THE PAST (NTA FORM 6) ☐ TWO WEEKS ☐ MONTH
☐ COUNSELOR'S REPORT OVERDUE (COUNSELOR'S NAME______________________________________)

5. SERVICE AT OTHER CENTER — PERIOD COVERED

NAME OF OTHER CENTER
DATE
☐ NO REFERRAL INDICATED (NTA FORM 9)

6. METHADONE DISBURSEMENT — PERIOD COVERED

☐ TOTAL AMOUNT REPORTED DOES NOT AGREE WITH THE AMOUNT DISBURSED IN THE BOTTLE
BOTTLE NUMBER
AMOUNT OF DISCREPANCY (+OR -)

SIGNATURE OF THE DIRECTOR
DATE

TO: DIRECTOR, NARCOTICS TREATMENT ADMINISTRATION

CENTER ADMINISTRATOR'S REPLY (USE REVERSE SIDE IF NECESSARY)

SIGNATURE OF THE CENTER ADMINISTRATOR
DATE

ATTACHMENT NINE

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Narcotics Treatment Administration

PATIENT CONSENT FORM FOR RELEASE OF TREATMENT INFORMATION

I hereby authorize the following person/agency:

____
Name

____
Address

____
Telephone

I understand that only Information Central is authorized to release this information. This consent form is void after ______________________.

PATIENT SIGNATURE______________________

DATE______________________

WITNESS______________________

A.O. 202.1
Addendum
April 7, 1971
OD

ADMINISTRATION ORDER

1. *Purpose*

The purpose of this administration order is to provide additional clarification for the medical and program guidelines as originally issued for the Narcotics Treatment Administration programs and cooperating agencies.

2. *Procedures*

Anyone missing 3 days medication at any center is to have his medication discontinued until he sees the doctor at the center, at which time he will need a new prescription signed by the physician. If a physician is not immediately available, the patient may be given an emergency dose not to exceed 25 mgs. to hold him until he can see the physician.

No new patient can be given a dose in excess of 50 mgs. on the first day of his program, whether it is maintenance or detoxification, unless it can be verified that he is being transferred from a maintenance program and is currently on a higher dose.

[Exhibit No. 11(e)]

A STUDY OF NARCOTICS ADDICTED OFFENDERS AT THE DISTRICT OF COLUMBIA JAIL

(By Nicholas J. Kozel, Barry S. Brown, and Robert L. DuPont, Narcotics Treatment Administration, Washington, D.C.)

(An acknowledgement of appreciation is made to Charles Rodgers, Superintendent of the District of Columbia Jail, for his cooperation and assistance in this study and to the research assistants for their unremitting effort to collect data under extraordinary conditions.)

A study was conducted at the District of Columbia Jail between August 11 and September 22, 1969, in an effort to determine the parameters of heroin use in the District of Columbia. Findings of the study are based on responses to interview schedules personally administered by a team of research assistants and the results of urinalysis conducted separately by the research assistants.

METHOD

Interview schedules were completed on an accidental sample of 225 of the residents present at the District of Columbia Jail during the time the study was conducted. In addition, urine specimens were collected from 129 of those interviewed. Urine specimens were collected from as many new offenders as possible at the time of their admission. The research team subsequently attempted to interview as many of these new admissions as they could reach—usually within the first few days of incarceration.

To determine whether the sample interviewed was representative of the larger offender population from which it had been drawn, comparisons were made on selected personal and social characteristics. Comparisons made on age, race, number of prior commitments, and offense for which presently incarcerated indicated that, in terms of these characteristics, the sample was representative of the District of Columbia Jail population.

RESULTS

Drug use

Among the 225 offenders interviewed, 45 percent were identified as addicted to heroin. Forty-three percent admitted using heroin and having been addicted to it. An additional 2 percent of the total sample—3 percent of the sample of urinalyses—reported never having used heroin or refused to answer the question concerning heroin use, but had positive urinalysis results for morphine and/or quinine—the components of heroin (table 1).[1] Thus, 45 percent of all persons admitted to the District of Columbia Jail can be described as addicted to heroin.

Among nonaddicts, 22 percent stated they had used drugs at some time in the past (table 2). Of these, most started out on marihuana. At the same time, almost half of the addicts stated that marihuana was the first drug they had ever used. About a quarter of the addicts, however, started out directly on heroin (table 2a).

---

[1] This veracity among narcotics addicts supports Ball's findings in his study of addict interview responses. Ball, John C. "The Reliability and Validity of Interview Data Obtained from 59 Narcotic Drug Addicts." The American Journal of Sociology, 1967, 72(6), 650-654.

Cocaine.—The great majority of self-reported addicts—85 percent—have used cocaine, usually trying it for the first time after they had turned 20 years of age. More than half of those who have used cocaine in the past admit to still using it. At the same time, 29 percent of the nonaddicts who admitted using drugs have tried cocaine (tables 3, 3a, and 3b).

Marihuana.—Marihuana has been used by far more nonaddict drug users—68 percent—than any other drug. Similarly, 75 percent of the self-reported addicts have used marihuana. Among addicts, around a third had used marihuana for the first time before age 17, but when both groups are combined, 50 percent report having used marihuana for the first time when they were older than 18 years. About half of the nonaddicts and a third of the addicts who had tried marihuana in the past are still using it (tables 4, 4a, and 4b).

Barbiturates.—Eighteen percent of self-reported addicts admit having used barbiturates. Like marihuana, barbiturates were, for the most part, first tried after the user had reached 18 years of age. Five of the 17 addicts who have used barbiturates state they are using them at present (tables 5, 5a, and 5b).

Methadone.—Street methadone has been used by 16 percent of self-reported addicts. None of the nonaddict drug users report ever having used street methadone.

Amphetamines.—Among self-reported addicts and nonaddict drug users, 13 percent mention having used amphetamines. Use of amphetamines begins at about 18 and half of those who have used them in the past continue to use them at present (tables 7, 7a, and 7b).

Heroin.—Though not addicted, four of the 28 nonaddict drug users have used heroin. By definition, all of the addicts have used heroin. In terms of age, half of the addicts had used heroin for the first time before they were 20 years old. Indeed, 26 percent had used heroin by 17 (tables 8 and 8a).

Heroin addiction

Withdrawal.—The overwhelming majority of self-reported heroin addicts—88 percent—stated that they had experienced withdrawal symptoms (table 9). At the same time, only 38 percent recall ever receiving treatment for their addiction problem (table 9a).

Off drugs during past 5 years.—Eighty-five percent of addicts report having been off the drugs for some period of time during the past 5 years (table 10). The number of times drugs have been voluntarily or involuntarily given up ranges from one to more than 10, with over half of the addicts claiming to have been off drugs three times or less during the past 5 years (table 10a).

Support of habit.—The average reported cost of a heroin habit is $44 a day. Not surprisingly, the majority of heroin addicts have resorted to crime as a means of supporting their habit (table 11). Crime, hustling, and pushing drugs, alone or in combination with legitimate employment are the usual ways in which habits are supported (table 11a).

Stop own drug use.—Eighty-eight percent of addicts believe that they can stop using drugs (table 12). A variety of ways of stopping drug use were mentioned including changing environments, methadone or other treatment, work, and jail. However, 26 percent of those who believe they can stop feel they could just stop without outside assistance, while an additional 11 percent either could not answer or did not know how to stop their own drug use (table 12a).

Drug use among family.—There is reportedly little drug use among members of the addicts' families—ranging from 5 percent among spouses to 10 percent among siblings. At the same time, there is a relatively high incidence of don't know/no answer responses to questions about family drug use (tables 13, 13a, and 13b). This suggests that, while inclined to be candid about their own history of drug use, addicts may be less than willing to reveal information about their family which they feel would, in some way, place their family in jeopardy.

Drug use among friends.—The preponderance of addicts report that at least some of their friends use drugs. Indeed, a third state that all of their friends are drug users, while 2 percent deny having any friends who use drugs (table 14).

Age of drug users.—Slightly more than a third of the addicts report that most heroin users today are between 16 and 25 years of age. At the same time, another third either don't know or didn't respond to the question (table 15). Drug use, according to a majority of the addicts, presently begins among youths between 15 and 17 years old (table 15a).

Methadone treatment.—Eighty-six percent of self-reported heroin addicts have heard of methadone treatment as a way of overcoming illegal drug use (table 16). Of these, almost three-quarters believe methadone treatment is good without qualification, while an additional 7 percent feel that, on the whole, it is good, but still have some reservations about it (table 16a).

Personal and social characteristics

Age and education.—About a third of addicts and nonaddicts are 21 years old or younger and two-thirds are under 30 (table 17). More than 75 percent of the two groups have had some high school education, and 25 percent report graduating from high school (table 18).

Parents.—Approximately 80 percent of addicts and nonaddicts claim to have been reared by their biological parents (table 19). At the same time, a greater number of addicts as compared to nonaddicts report that both of their parents are still living (table 20).

Among those whose parent(s) are deceased, about 50 percent of the addicts were less than 16 when one or both parents died, while about half of the nonaddicts were between 16 and 21 when death of parent(s) occurred (tables 20a and 20b).

Siblings.—Compared to addicts, nonaddicts tend to have more brothers and sisters. Thirty percent of nonaddicts have four or more brothers and 20 percent have four or more sisters compared to 15 and 11 percent respectively for addicts (tables 21 and 21a).

Religion.—Both addicts and nonaddicts are more likely to be members of Protestant sects than other religious groups. At the same time, a significantly greater number of nonaddicts compared to addicts report religious affiliation (table 22). Furthermore, while there was noticeably more frequent attendance at religious services during childhood among both groups, significantly more nonaddicts compared to addicts claim to attend services at present (tables 22a and 22b).

Martial status.—The majority of both addicts and nonaddicts are single (table 23). Among those who are married, slightly more addicts report having been married for 2 years or less (table 23a). Both groups have experienced a high incidence of separation from their spouses—60 percent on the average (table 23b).

Employment status.—Significantly more nonaddicts than addicts were employed at time of arrest (table 24). The majority of both groups were employed by the time they reached 18 years of age (table 24a) and the usual type of employment for both groups is unskilled labor (table 24b). More than half of both groups have been employed at three or less places during the past 5 years (table 24c).

Residence.—Neither group is very mobile. Twenty-three percent of the nonaddicts and 33 percent of the addicts have resided at the same home for the past 5 years. Over 70 percent of the two groups have changed their residences less than three times during the past 5 years (table 25). Further, about half of both groups resided for more than 1 year at the home in which they were living at the time of their arrest (table 25a).

Income.—Almost two-thirds of addicts and nonaddicts supported themselves financially at time of arrest. Twenty percent were dependent on their parents (table 26). About half of both groups reported that the weekly income of the home in which they were living when arrested was between $51 and $150 (table 26a).

City of Birth.—Significantly more addicits were born and spent most of their childhood in large cities as compared to nonaddicts (tables 27 and 27a).

Military service.—Between 25 and 29 percent of the two groups served in the military (table 28). Nonaddicts had slightly more years of service (table 28a) and 70 percent of both groups, on the average, reported having had honorable discharges (table 28b).

Criminal offenses.—In terms of present offenses, addicts are charged with more offenses against property and drug violations—37 and 15 percent respectively as comapred with 30 and 6 percent respectively for nonaddicts. Non-addicts are charged are larceny and theft, while nonaddicts are not charged with any addicts (21 percent). However, three of the four criminal homicides reported were charged against addicts. The most frequent crimes with which addicts are charge are larceny and theft, while nonaddicts are not charged with any single offense with outstanding frequency (table 29).

CONCLUSIONS

Certain patterns emerge from the results of this study. One of the most relevant is the alarmingly widespread use of heroin in the District of Columbia. Forty-five percent of offenders entering the District of Columbia jail are heroin addicts. Further, there is reason to believe that hard narcotics are beginning to reach a younger population. Although addicts at the District of Columbia jail started using drugs in their late teens or early twenties, drug use today is starting at about 15 or 16 years of age. The profound implications of this problem for society are apparent. Addicts must turn to antisocial behavior, at least in part, to support their habit. And this deviant behavior will continue to increase as a function of addiction.

Another important finding is the lack of difference between addicts and nonaddicts in the criminal justice system. It appears to be a widely held belief that addicts belong to a subculture with its own unique membership characteristics quite distinct from the nonaddict criminal subculture. However, the similarity between addicts and nonaddicts in terms of personal and social characteristics and, to some extent, drug use (marihuana) suggests that both addict and nonaddict offenders may, in fact, belong to a single subculture characterized by a variety of illegal activties, one of which is use of hard narcotics.

Although, for the most part, addicts and nonaddicts share common characteristics, there are a few areas in which they differ. For example, nonaddicts tend to have more ties to the community—come from larger families and attend religious services with much greater frequency—than addicts. These indications of a closer relationship with the community may, in effect, provide additional support which the addict finds lacking.

Addicts, on the other hand, appear to be more urban, having been born and reared in large cities to a much greater extent than nonaddicts.

The results also point out a difference between addicts and nonaddicts in terms of the offenses with which they are charged. This provides some support for the idea that addicts do not commit crimes against people with the same frequency as nonaddict offenders.

Contrary to the stereotype of an unstable, highly mobile personality, the narcotics addict appears to be able to retain employment. A surprisingly high percentage of addicts were employed at the time of arrest and, indeed, almost half of the addicts claim to have supported their heroin habit in part through work. Further, adicts showed a certain stability of behavior—at least to the extent of not differing from nonaddicts—in maintaining themselves in the military.

One further point that deserves mention is the apparent interest that most addicts have in stopping their own drug use. The great majority have been off drugs at some time during the past several years. Most addicts also believe, realistically or not, that they can give up drugs on their own. In addition, even before the citywide narcotics treatment program was implemented in which methadone was used as one technique of treating heroin addiction, most addicts had heard about methaone, and a majority of these believe it was a good form of treatment. This favorability toward methadone may provide a treatment climate which could facilitate rehabilitation.

In conclusion, it should be mentioned that intensive research in narcotics addiction and treatment has, in a sense, very recently begun. Very little seems to be known about the addict. This study provides some basic descriptions of a specific addict population. Hopefully, those findings will suggest new areas of research aimed at combating the problem of heroin addiction in the community.

TABLE 1.—POSITIVE URINALYSES FOR MORPHINE AND OR QUININE AND SELF-REPORTED HEROIN DEPENDENCE

	Addict		Non-addict		Total	
	Number	Percent	Number	Percent	Number	Percent
Urinalyses and self-reports:						
Interview positive; urine positive	42	42			42	19
Interview positive; urine negative	10	10			10	4
Interview positive; no urine	44	44			44	20
Interview negative; urine positive	4	4			4	2
Interview negative; urine negative			73	58	73	32
Interview negative; no urine			52	42	52	23
Total	100	100	125	100	225	100

TABLE 2.—SELF-REPORTED USE OF DRUGS

	Addict		Non-addict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used drugs:						
Yes	96	96	28	22	124	55
No	2	2	97	78	99	44
No answer	2	2			2	1
Total	100	100	125	100	225	100
First drug of abuse:						
Marijuana	43	45	17	61	60	49
Heroin	22	23	4	14	26	21
Cocaine	12	13	2	7	14	11
Other	3	3	1	4	4	3
No answer; don't know	16	16	4	14	20	16
Total	96	100	28	100	124	100

TABLE 3.—PROFILE OF COCAINE USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used cocaine:						
Yes	82	85	8	29	90	73
No	14	15	20	71	34	27
Total	96	100	28	100	124	100
(a) Age at 1st use of cocaine:						
14 years	1	1			1	1
15 years	2	2			2	2
16 years	4	5			4	5
17 years	7	9	2		9	10
18 years	6	7			6	7
19 years	7	9			7	8
20 years	12	15	1		13	14
21 years or older	35	42	3		38	42
No answer; don't know	8	10	2		10	11
Total	82	100	8		90	100
(b) Presently using cocaine:						
Yes	46	56	4		50	56
No	19	23	4		23	25
No answer	17	21			17	19
Total	82	100	8		90	100

TABLE 4.—PROFILE OF MARIHUANA USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used marihuana:						
Yes	72	75	19	68	91	73
No	23	24	9	32	32	26
No answer	1	1			1	1
Total	96	100	28	100	124	100
(a) Age at 1st use of marihuana:						
13 years or younger	2	2			2	2
14 years	5	7			5	5
15 years	8	11	1	5	9	10
16 years	8	11	1	5	9	10
17 years	6	9	2	11	8	9
18 years or older	34	47	11	58	45	50
No answer; don't know	9	13	4	21	13	14
Total	72	100	19	100	91	100
(b) Presently using marihuana:						
Yes	22	31	9	47	31	34
No	34	47	7	37	41	45
No answer	16	22	3	16	19	21
Total	72	100	19	100	91	100

TABLE 5.—PROFILE OF BARBITUARATE USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used barbituarates:						
Yes	17	18	1	4	18	15
No	79	82	27	96	106	85
Total	96	100	28	100	124	100
(a) Age at first use of barbituarates:						
14 years or younger	1				1	
15 years	1				1	
16 years	1				1	
17 years	1				1	
18 years or older	12				12	
No answer; don't know	1		1		2	
Total	17		1		18	
(b) Presently using barbiturates:						
Yes	5				5	
No	10				10	
No answer	2		1		3	
Total	17		1		18	

TABLE 6.—PROFILE OF STREET METHADONE USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	umber	Percent
Ever used street methadone:						
Yes	15	16			15	12
No	81	84	28	100	109	88
Total	96	100	28	100	124	100
(a) Age at first use of street methadone:						
18 years	1				1	
19 years						
20 years	2				2	
21 years or older	8				8	
No answer; don't know	4				4	
Total	15				15	
(b) Presently using street methadone:						
Yes	2				2	
No	7				7	
No answer	6				6	
Total	15				15	

TABLE 7.—PROFILE OF AMPHETAMINE USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used amphetamines:						
Yes	12	13	4	14	16	13
No	84	87	24	86	108	87
Total	96	100	28	100	124	100
(a) Age at 1st use of amphetamine:						
16 years	1				1	
17 years	2				2	
18 years	8		1		9	
19 years or older			2		2	
No answer; don't know	1		1		2	
Total	12		4		16	
(b) Presently using amphetamine:						
Yes	5		3		8	
No	5		1		6	
No answer	2				2	
Total	12		4		16	

TABLE 8.—PROFILE OF HEROIN USE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Ever used heroin:						
Yes	96	100	4	14	100	81
No			24	86	24	19
Total	96	100	28	100	124	100
(a) Age 1st use of heroin:						
14 years or younger	1	1			1	1
15 years	5	5			5	5
16 years	8	8			8	8
17 years	11	12			11	11
18 years	12	13	1		13	13
19 years	11	12	1		12	12
20 years	8	8	1		9	9
21 years	6	6			6	6
Over 21 years	34	35	1		35	36
Total	96	100	4		100	100

TABLE 9.—HEROIN WITHDRAWAL

	Addicts	
	Number	Percent
Ever withdrew:		
Yes	84	88
No	11	11
No answer; don't know	1	1
Total	96	100
(a) Treatment for heroin addiction:		
Yes	36	38
No	55	57
No answer; don't know	5	5
Total	96	100

TABLE 10.—OFF DRUGS DURING PAST 5 YEARS

	Addicts	
	Number	Percent
Off drugs:		
Yes	82	85
No	13	14
No answer; don't know	1	1
Total	96	100
(a) Number of times off drugs during past 5 years:		
1	19	23
2 to 3	26	32
4 to 5	10	12
6 to 10	7	9
More than 10	1	1
No answer; don't know	19	23
Total	82	100

TABLE 11.—SUPPORT OF HEROIN HABIT

	Addicts	
	Number	Percent
Ever commit a crime to support habit:		
Yes	57	59
No	27	28
No answer	12	13
Total	96	100
(a) Usual way habit was supported:		
Hustling (N=96)	55	57
Work (N=96)	45	47
Crime (N=96)	42	44
Pushing (N=96)	27	28

TABLE 12.—BELIEVE OWN USE OF DRUGS CAN BE STOPPED

	Addicts	
	Number	Percent
Can stop:		
Yes	84	88
No	1	1
Don't know	8	8
No answer	3	3
Total	96	100
(a) Way in which own use of drugs can be stopped:		
Just stop	22	26
Change environment	16	19
Treatment; therapy	15	18
Methadone	12	14
Work	6	7
Jail	4	5
No answer; don't know	9	11
Total	84	100

	Addicts	
	Number	Percent

TABLE 13.—DRUG USE BY SPOUSE

	Addicts	
	Number	Percent
Drug use:		
Yes	2	5
No	29	73
No answer; don't know	9	22
Total	40	100
(a) Drug use among siblings:		
Yes	9	1
No	62	71
No answer; don't know	16	19
Total	87	100
(b) Drug use among other members of the family:		
Yes:		
Father	3	3
Mother	3	3
Other	3	3
No	65	65
No answer; don't know	26	26
Total	100	100

TABLE 14.—DRUG USE AMONG FRIENDS

	Addicts	
	Number	Percent
Drug use:		
Yes:		
All	32	32
Most	7	7
Some	49	49
No	2	2
No answer; don't know	10	10
Total	100	100

TABLE 15.—AGE OF MOST HEROIN USERS TODAY AS REPORTED BY ADDICTS

	Addicts	
	Number	Percent
Age:		
Less than 10 years	3	3
11 to 15	6	6
16 to 20	20	20
21 to 25	16	16
26 to 30	8	8
31 to 35	5	5
36 to 40	3	3
More than 40 years	7	7
No answer; don't know	32	32
Total	100	100
(a) Age at which most drug use presently begins as reported by addicts:		
12 years or younger	2	2
13	5	5
14	11	11
15	17	17
16	28	28
17	12	12
18 years or older	13	13
No answer; don't know	12	12
Total	100	100

TABLE 16.—FAMILIARITY WITH METHADONE TREATMENT

	Addicts	
	Number	Percent
Heard of methadone:		
Yes	86	86
No	9	9
No answer	5	5
Total	100	100
(a) Favorability concerning methadone treatment:		
Believe methadone treatment is good:		
Yes (unqualified)	63	73
Yes (with reservations)	6	7
No	4	5
Don't know	11	13
No answer	2	2
Total	86	100

TABLE 17.—AGE OF ADDICTS AND NONADDICTS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
16 to 17			2	1	2	1
18 to 19	16	16	25	20	41	18
20 to 21	14	14	18	14	32	14
22 to 23	7	7	11	9	18	8
24 to 25	9	9	11	9	20	9
26 to 27	9	9	11	9	20	9
28 to 29	9	9	5	4	14	6
30 to 31	9	9	4	3	13	6
32 to 33	4	4	6	5	10	4
34 to 35	4	4	6	5	10	4
36 to 37	5	5	1	1	6	3
38 to 39	2	2	7	6	9	4
40 or older	12	12	18	14	30	14
Total	100	100	125	100	225	100

TABLE 18.—HIGHEST GRADE COMPLETED

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Less than 8	10	10	19	15	29	13
8	8	8	7	5	15	7
9	13	13	22	18	35	16
10	22	22	16	13	38	17
11	21	21	25	20	46	20
12	19	19	19	15	38	17
Some higher education	6	6	12	10	18	8
No answer	1	1	5	4	6	2
Total	100	100	125	100	225	100

TABLE 19.—REARED BY NATURAL PARENTS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Yes	79	79	102	82	181	81
No	20	20	17	13	37	16
No answer	1	1	6	5	7	3
Total	100	100	125	100	225	100

TABLE 20.—PARENTS LIVING OR DECEASED

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Living or deceased:						
Both parents living	49	49	45	36	94	42
Father deceased	25	25	37	30	62	28
Mother deceased	11	11	16	13	27	12
Both parents deceased	11	11	18	14	29	13
No answer, don't know	4	4	9	7	13	5
Total	100	100	125	100	225	100
(a) Age at time of mother's death:						
5 years or younger	4	18	3	9	7	13
6 to 15	7	32	8	24	15	27
16 to 21	2	9	8	24	10	18
Over 21	7	32	13	38	20	35
No answer; don't know	2	9	2	5	4	7
Total	22	100	34	100	56	100
(b) Age at time of father's death:						
5 years or younger	7	19	4	7	11	12
6 to 15	12	34	20	37	32	35
16 to 21	6	17	7	13	13	14
Over 21	7	19	21	38	28	31
No answer; don't know	4	11	3	5	7	8
Total	36	100	55	100	91	100

TABLE 21.—NUMBER OF BROTHERS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Number:						
0	18	18	21	17	39	17
1	21	21	22	18	43	19
2	24	24	25	20	49	22
3	14	14	11	9	25	11
4	9	9	17	14	26	11
5	3	3	8	6	11	5
6			6	5	6	3
7	2	2	3	2	5	2
More than 7	1	1	5	3	6	3
No answer; don't know	8	8	7	6	15	7
Total	100	100	125	100	225	100
(a) Number of sisters:						
0	16	16	12	10	28	13
1	28	28	31	25	59	26
2	22	22	35	28	57	25
3	14	14	13	10	27	12
4	5	5	9	7	14	6
5	3	3	7	5	10	4
6			1	1	1	1
7	1	1	7	6	8	4
More than 7	2	2	1	1	3	1
No answer; don't know	9	9	9	7	18	8
Total	100	100	125	100	225	100

TABLE 22.—RELIGIOUS AFFILIATION

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Affiliation:						
Protestant	43	43	63	50	106	47
Catholic	24	24	32	26	56	25
Other	10	10	17	14	27	12
None	23	23	11	9	34	15
No answer; don't know			2	1	2	1
Total	100	100	125	100	225	100
(a) Childhood attendance at religious services:						
At least once a week	82	82	99	79	181	80
Less than once a week	5	5	11	9	16	7
Not at all	12	12	9	7	21	10
No answer; don't know	1	1	6	5	7	3
Total	100	100	125	100	225	100
(b) Present attendance at religious services:						
At least once a week	26	26	58	46	84	37
Less than once a week	10	10	17	14	27	12
Not at all	63	63	47	38	110	49
No answer	1	1	3	2	4	2
Total	100	100	125	100	225	100

TABLE 23.—PRESENT MARITAL STATUS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Status:						
Married	21	21	24	19	45	20
Single	57	57	68	54	125	56
Separated or divorced	15	15	32	26	47	21
No answer	7	7	1	1	8	3
Total	100	100	125	100	225	100
(a) Length of time married:						
1 year or less	6	15	5	9	11	12
2 years	6	15	4	8	10	11
3 to 4 years	4	10	9	17	13	14
5 to 6 years	5	13	9	17	14	15
7 to 8 years	7	18	3	5	10	11
9 to 10 years	3	7	4	8	7	7
More than 10 years	8	20	12	23	20	22
No answer	1	2	7	13	8	8
Total	40	100	53	100	93	100
(b) Ever separated from spouse:						
Yes	25	62	31	58	56	60
No	13	33	20	38	33	36
No answer	2	5	2	4	4	4
Total	40	100	53	100	93	100

TABLE 24.—EMPLOYMENT STATUS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Status:						
Employed	41	41	76	61	117	52
Unemployed	55	55	48	38	103	46
No answer	4	4	1	1	5	2
Total	100	100	125	100	225	100
(a) Age at which first started working:						
15 years or younger	15	15	13	11	28	12
16 years	19	19	33	26	52	23
17 years	20	20	22	18	42	19
18 years	21	21	18	14	39	17
19 years	4	4	8	6	12	5
20 years	6	6	8	6	14	6
21 years or older	8	8	11	9	19	9
No answer; don't know	7	7	12	10	19	9
Total	100	100	125	100	225	100
(b) Usual level of employment:						
Unskilled	45	45	65	52	110	49
Semi-skilled	24	24	25	20	49	22
Skilled	22	22	22	18	44	19
Other	4	4	7	5	11	5
No answer; don't know	5	5	6	5	11	5
Total	100	100	125	100	225	100
(c) Number of places employed during past 5 years:						
0	7	7	3	2	10	4
1	17	17	16	15	33	15
2	19	19	28	23	47	21
3	23	23	24	19	47	21
4	9	9	17	14	26	11
5	6	6	9	7	15	7
More than 5	17	17	26	20	43	19
No answer; don't know	2	2	2	2	4	2
Total	100	100	125	100	225	100

TABLE 25.—NUMBER OF PLACES RESIDED DURING PAST 5 YEARS

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Number:						
1	33	33	29	23	62	27
2 to 3	46	46	60	48	106	47
4 to 5	8	8	12	10	20	9
6 to 7	2	2	5	4	7	3
8 to 9	1	1	3	2	4	2
10 or more	5	5	1	1	6	3
No answer; don't know	5	5	15	12	20	9
Total	100	100	125	100	225	100
(a) Length of time resided at home in which living at time of arrest:						
Less than 1 month	17	17	20	16	37	16
1 to 3 months	10	10	13	10	23	10
3 to 6 months	8	8	7	6	15	7
6 to 12 months	11	11	17	14	28	13
1 to 3 years	17	17	24	19	41	18
3 to 5 years	8	8	7	6	15	7
More than 5 years	27	27	28	22	55	24
No answer, don't know	2	2	9	7	11	5
Total	100	100	125	100	225	100

TABLE 26.—MAIN FINANCIAL SUPPORT OF PEOPLE IN HOME IN WHICH LIVING AT TIME OF ARREST

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Financial support:						
Self	63	63	81	65	144	64
Parent(s)	21	21	25	20	46	20
Friends	6	6	2	2	8	3
Relatives	4	4	5	4	9	4
Spouse	2	2	4	3	6	3
Other	1	1			1	1
No answer	3	3	8	6	11	5
Total	100	100	125	100	225	100
(a) Total weekly income of home in which living at time of arrest:						
$50 or less	3	3	7	5	10	4
$51 to $100	21	21	35	28	56	25
$101 to $150	27	27	31	24	58	26
$151 to $200	10	10	12	10	22	10
$201 to $250	5	5	7	6	12	5
$251 to $300	6	6	7	6	13	6
$301 to $400	4	4	1	1	5	2
More than $400	5	5	2	2	7	3
No answer; don't know	19	19	23	18	42	19
Total	100	100	125	100	225	100

TABLE 27.—SIZE OF CITY IN WHICH BORN

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Size:						
Large city (over 500,000)	72	72	62	49	134	
Medium city (100,000 to 500,000)	6	6	6	5	12	
Small city (10,000 to 100,000)	7	7	19	15	26	
Town (1,000 to 10,000)	4	4	15	12	19	
Village	1	1	5	4	6	
Farm	1	1	4	3	5	
No answer; don't know	9	9	14	12	23	
Total	100	100	125	100	225	
(a) Size of city in which most of childhood was spent:						
Large city (over 500,000)	74	74	67	54	141	
Medium city (100,000 to 500,000)	5	5	2	2	7	
Small city (10,000 to 100,000)	5	5	18	14	23	
Town (1,000 to 10,000)	2	2	10	8	12	
Village	1	1	2	1	3	
Farm	1	1	5	4	6	
No answer; don't know	12	12	21	17	33	
Total	100	100	125	100	225	

TABLE 28.—MILITARY SERVICE

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Service:						
Yes	25	25	36	29	61	27
No	73	73	88	70	161	72
No answer	2	2	1	1	3	1
Total	100	100	125	100	225	100
(a) Years in military service:						
1 year	5	20	6	17	11	18
2 years	8	32	9	25	17	28
3 years	6	24	7	19	13	21
4 years	1	4	5	14	6	10
More than 4 years	4	16	7	19	11	18
No answer	1	4	2	6	3	5
Total	25	100	36	100	61	100
(b) Type of military discharge:						
Honorable	18	72	25	70	43	70
Dishonorable	2	8	3	8	5	8
Medical	1	4	3	8	4	6
General	1	4			1	2
Other	2	8	2	6	4	7
No answer; don't know	1	4	3	8	4	7
Total	25	100	36	100	61	100

TABLE 29.—OFFENSE FOR WHICH PRESENTLY CHARGED

	Addict		Nonaddict		Total	
	Number	Percent	Number	Percent	Number	Percent
Offense:						
Larceny; theft	21	21	11	8	32	14
Drug law violation	15	15	8	6	23	10
Robbery	10	10	15	12	25	11
Possession of implements of crime	5	5			5	2
Burglary	6	6	8	6	14	6
Receiving stolen property	3	3	3	2	6	2
Carry/possess weapon	5	5	12	9	14	6
Housebreaking			1	1	1	1
Assault (other than aggravated)	5	5	11	9	16	7
Soliciting (for lewd and immoral purposes)	4	4	1	1	5	2
Criminal homicide	3	3	1	1	4	2
Forgery; counterfeiting	3	3	3	2	6	2
Fraud; embezzlement	2	2	2	2	4	2
Auto theft	2	2	6	5	8	3
Armed robbery	1	1	2	2	3	1
Bank robbery	2	2	1	1	3	1
Disorderly conduct; drunkenness	1	1	6	5	7	3
Escape	2	2			2	1
Destroying private property			5	4	5	2
Assault (with a deadly weapon)			4	3	4	2
Offense against family			1	1	1	1
Traffic violation	1	1	4	3	5	2
Obstructing justice			3	2	3	1
Parole/probation violation	1	1			1	1
Unlawful entry	2	2			2	1
Resisting arrest			1	1	1	1
Sex offense			1	1	1	1
Manslaughter			2	2	2	1
Gambling			1	1	1	1
Contempt			1	1	1	1
Civil action			1	1	1	1
Bail Act			1	1	1	1
No answer; don't know	6	6	9	7	15	7
Total	100	100	125	100	225	100

(Thereupon, at 2:45 p.m. the hearing adjourned, to reconvene tomorrow, April 28, 1971, in room 2253, at 9:45 a.m.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

WEDNESDAY, APRIL 28, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:00 a.m., in room 2253, Rayburn House Office Building, the Honorable Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Waldie, Brasco, Mann, Murphy, Rangel, Wiggins, Steiger, Winn, Sandman, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order please.

The Select Committee on Crime today continues its hearings into what science and medicine can do to help us fight heroin addiction in the United States.

Yesterday, we heard impressive testimony from Dr. Frances Gearing of New York and Dr. Robert DuPont of the District of Columbia on the effectiveness of methadone programs.

Today we are continuing our examination of methadone with testimony from Dr. Jerome Jaffe, director of the Illinois Drug Abuse Program.

Dr. Jaffe was originally scheduled to testify yesterday, but was kind enough to stay over until today as we ran behind schedule because of several votes on the floor.

We will also hear testimony today from Dr. Harvey Gollance, assistant medical director of Beth Israel Medical Center in New York.

Both Dr. Jaffe and Dr. Gollance have had wide experience in the administration of methadone maintenance programs.

We also have with us today Robert F. Horan, Commonwealth attorney for Fairfax County, Va., who will tell us about the special drug-abuse problems of his suburban county.

We will also hear from Dr. Daniel Casriel about a new treatment program for heroin addicts that employs a rapid-acting detoxification drug.

And, finally, Dr. Gerald Davidson, of Boston City Hospital, will explain the workings of his program.

We hope that the information we receive from these witnesses and others yet to appear will help us formulate recommendations to the Congress on what the Federal Government can do to fight addiction, in addition to what we are now doing.

The committee is pleased to call now Dr. Jerome H. Jaffe, a distinguished doctor and the director of one of the Nation's largest drug-abuse programs.

Dr. Jaffe is associate professor of psychiatry at the University of Chicago, and director of the drug abuse program of the Illinois Department of Mental Health.

Dr. Jaffe holds both a bachelor's and master's degree in psychology from Temple University and an M.D. from the Temple University School of Medicine.

He has been the holder of a U.S. Public Health Service Post Doctoral Fellowship in Pharmacology and has twice received the U.S. Public Health Service Career Development Award.

Dr. Jaffe is a member of numerous scientific and honorary organizations. He is a member of the editorial board of the International Journal of the Addictions; a member of the Review Committee of NIMH's Center for Studies of Narcotics and Dangerous Drugs; a consultant to the Illinois Narcotic Advisory Council and the New York State Narcotic Addiction Control Commission. He also serves as secretary of the section on drug abuse of the World Psychiatric Association; a consultant to the Department of Health, Education, and Welfare; and special consultant to the World Health Organization's Expert Committee on Drug Dependence.

He is also the author of numerous articles on drug addiction.

Dr. Jaffe, we are indeed pleased to receive your testimony today.

Mr. Perito, will you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Jaffe, I understand that you have a prepared statement; is that correct?

STATEMENT OF DR. JEROME H. JAFFE, DIRECTOR, ILLINOIS DRUG ABUSE PROGRAM[1]

Dr. JAFFE. That is correct.

Mr. PERITO. Would you care to present that to the committee?

Dr. JAFFE. Yes. I would like to comment briefly on four areas related to the problem of narcotics addiction and drug abuse:

First. The spectrum of treatment services required to treat narcotics users, and our experiences in the State of Illinois in developing a multimodality program for delivering such services.

Second. A progress report on acetyl-methadol, a drug that we believe may have significant advantages over methadone in the treatment of heroin users.

Third. Our current estimates on the effect of treatment in reducing antisocial activity.

Fourth. My own views on the kinds of research that will be required if we are to avoid another pandemic of drug use similar to the one we are now experiencing.

---

[1] Subsequent to Dr. Jaffe's appearance before the committee, President Nixon, on June 12, 1971, named Dr. Jaffe as his chief consultant on drug abuse and drug dependence and proposed his name for consideration by the Senate as Director of the President's proposed Special Action Office on Drug Abuse Prevention.

I.

In the State of Illinois our efforts to develop treatment programs began in 1966. Our approach to treatment was based on a very clear set of premises and principles:

(1) Narcotic users are a heterogeneous group requiring different treatments.

(2) To determine which treatments were most appropriate for a given community required a community diagnosis.

(3) Treatment programs should be located in the communities where patients lived.

(4) No program, no matter how sound it might appear to be theoretically or how appealing it was emotionally, would be continued unless objective evaluation revealed it to be effective and to justify the expenditure of public funds.

Initially, our program could be called a controlled comparison of several different approaches, somewhat competitive, but friendly. We developed a therapeutic community—Gateway Houses—modeled after Daytop Village. We explored the use of narcotic antagonists such as cyclazocine; we developed halfway houses, a specialized hospital unit; and we used methadone for maintenance at both high doses and low doses.

Later we began to wonder why it was necessary to have a separate unit for each approach. It became obvious that such separatism was a relic of old rivalries and philosophical disputes that had no place in a scientifically run and evaluated program. With some effort we were able to get most of our units to offer all of the available approaches in a more or less eclectic fashion.

In other words, at a single facility a patient could participate in a methadone maintenance program, later withdraw, live in a residential self-regulating community, reenter the community at large on an abstinent basis, or elect to take cyclazocine and in the event of a relapse, move back into a residential facility, or if he was holding a job merely start again on methadone on an ambulatory basis. He might then wait for a number of months—until it was his vacation time—move into the facilities and then withdraw from methodone.

Not every unit is able to sustain specialized treatment services. For example, we have one unit under the leadership of Dr. John Chapple that specializes in the care of addicts with serious medical problems, alcoholism, psychosis, and pregnancy. Yet this unit serves the entire network and a patient who needs such treatment is merely transferred without any interruption of treatment.

We believe that to reach the majority of addicts it requires more than one approach or modality. We also believe that we have demonstrated that all of the modalities can be accommodated within a single administrative structure. The advantage to this approach is that program planning and expansion can then be based on the results of a fair and uniform evaluation system imposed by the administrative structure rather than by emotion, rhetoric, and a political trial at arms in the lists of the mass media. This kind of eclectic program has come to be called the multimodality approach.

Currently lodged in the department of mental health and operated with the cooperation of the University of Chicago, the program consists of a network of 21 geographically distinct facilities across the State serving more than 1,600 narcotics users.

Our present primary goal is to eliminate the waiting list so that every patient who seeks treatment can get it immediately. We have enjoyed the full support of the Governor, the legislature, and the department of mental health. We should reach our primary goal within the next 6 months.

II.

Almost from the beginning of the work with methadone, it was obvious that if we expected patients maintained on methadone to lead normal, productive lives it would be impossible to demand that they come to a clinic every day in order to ingest their medication under supervision. Eventually patients would have to be permitted to take their medication home, and although we might hope that 95 percent of the patients would not abuse this privilege, it would be naive to hope that there would not be a small minority who would give away or sell their prescribed medication. Among the potential solutions to this problem would be a longer acting methadone-like drug.

In 1966, I proposed to study one such substance, acetyl-methadol, but the project was shelved when I moved from New York to the University of Chicago.

After a 3-year delay we resurrected the project and last year my colleagues and I reported that acetylmethadol seemed to be as effective as methadone in facilitating the rehabilitation of heroin addicts. Advantages includes its longer duration of action and its lower abuse potential. Its longer duration should also mean reduced program operating costs since, obviously, you don't have to give out the medication every day, but need only give it three times a week. Several months after our first report, one of my collaborators, Dr. Paul Blachly at the University of Oregon, sent us a confidential report in which he observed some adverse side effects with 1-acetyl-methadol.

By that time our group, including Drs. Charles Schuster, Edward Senay, and Pierre Renault had already repeated our controlled double-blind studies and had found no such side effects; since that time we have carried out still additional studies—so that our total experience includes well over 75 patients studied for at least 4 months. Thus far our conclusions are the same—acetyl-methadol is as effective as methadone.

I want to caution, however, that we have not used very high doses. We have used it primarily and solely in males and we cannot be certain at this point that at such higher doses we would not see unwanted effects.

III.

From the beginning of our program one of the criteria by which we measured effectiveness was the extent to which treatment reduced antisocial behavior. We have done at least four separate studies in which we have compared the self-reported arrest rates of patients prior to treatment and their arrest rates during treatment. In every one of these studies we have observed a very substantial drop in the arrest rates. In some instances the rates were reduced to one-half of the pretreatment rate. In others, the rates were reduced to one-third of the pretreatment rate. Until recently, we were unclear about how to evaluate these results.

First, they are considerably less dramatic than those reported by other workers. However, this could be due to our policy of taking all applicants regardless of our estimate of how well they will do.

But second, for technical reasons, we were unable to examine the actual arrest records of our patients, but were forced to rely on their own reports to our legal unit. The only penalty for a failure to report an arrest was that if it was later reported the legal unit would offer no assistance with respect to that arrest.

More recently our program wrote a contract with the University of Chicago Law School to conduct an independent assessment of the impact of treatment on crime.

Mr. H. Joo Shin and Mr. Wayne Kerstetter were able to obtain the arrest records of a sample of a little over 200 of our patients. We then gave them access to all of our data. Their findings are still being analyzed, but thus far they have found that official arrest records do not record all of the arrests that our patients have had.

The study conducted by the University of Chicago Law School revealed that prior to treatment this sample of patients had recorded on their arrest records approximately 84 arrests per 100 man-years; during treatment, they accumulated only 31 arrests per 100 man-years. Depending on how you want to calculate the percentage, this would be viewed as a 61-percent reduction in arrest rate. Self-reported data indicated that prior to treatment our patients had 143 arrests per 100 man-years. After treatment the arrest rate was 76 arrests per 100 man-years.

Thus, it appears that whether we use arrest records or patients self-reports, arrest rates decrease dramatically. We do not have at present a more detailed qualitative analysis of the change, but we suspect that the crimes committed by patients in treatment are less impulsive and more benign.

IV.

Lastly, we come to research:

It may be that I am too close to the issue to see it in perspective. To a certain extent I consider myself a displaced person.

I left my laboratory and my research in order to develop a much needed program in the State of Illinois and I look forward to returning to full-time research.

The projects that I personally think deserve high priorities are:

(1) Further studies on the use of antagonists in facilitating the withdrawal from methadone and in treating young people who have begun to use heroin but have not become physically dependent. We need to develop long-acting forms of nontoxic antagonists.

(2) An expanded investigation into the safety and utility of acetylmethadol and similar agents.

(3) The development of a system under the aegis of a health-care authority for monitoring trends in drug use and addiction so that we can mobilize earlier and more rationally to abort epidemics.

(4) Experiments to determine whether early intervention can abort a microepidemic.

(5) Further studies on the natural history of the drug-using syndromes; for example, we still do not know how many individuals stop using various drugs spontaneously.

(6) Basic studies on the nature of the biochemical events involved in tolerance and physical dependence.

Research requires people. It is simply inadequate to make money available and expect that trained and competent researchers will materialize from the ether. These individuals require support before they are ready to conduct their own research and not all of those who receive such support will develop into able researchers. Thus, some support for training of new researchers or the retraining of researchers from other fields is a prerequisite to a long-run attempt to conduct the research I have described.

Thank you.

Chairman PEPPER. That was a very able and comprehensive statement, Dr. Jaffe.

Mr. Perito, do you have any questions?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Jaffe, you started the program in Illinois in 1967?

Dr. JAFFE. Well, the legislature passed the appropriations bill and it was signed in August of 1967. It took us a number of months to find out how to use that appropriation because we were an entirely new agency in a sense.

We took the first patient, under the aegis of the Department of Psychiatry of the University of Chicago in January 1968, and that began in my own office at the university. We sort of got started in an unusual way.

Mr. PERITO. You have gone from one patient to 1,590 patients from January 1, 1968, up until the present time?

Dr. JAFFE. We have at least doubled our patient load every year, and intend to double it again this year. It is, we think, a very orderly rate of growth.

Mr. PERITO. Does your program or programs, rather, have a waiting list at the present time?

Dr. JAFFE. Yes; it has had a waiting list from the first day that we took in the first patient. No matter how fast we expand, we have always had people waiting for treatment.

Mr. PERITO. Your program is the largest in Chicago; is that correct?

Dr. JAFFE. Yes.

Mr. PEPITO. Are there other large programs working in conjunction with yours?

Dr. JAFFE. Well, we have no mechanism for monitoring the size of other programs. Unofficially, I think the largest program that does not come under our aegis has 50 or 60 people.

Mr. PERITO. Do you receive any Federal moneys for your program?

Dr. JAFFE. There is one grant from the National Institute of Mental Health to the University of Chicago.

Mr. PERITO. Is this a research or a service grant?

Dr. JAFFE. There is a service grant.

Chairman PEPPER. How much Federal assistance do you receive?

Dr. JAFFE. The first year it was about $450,000 to $500,000. It was a matching grant. It has decreased by 10 percent each year thereafter.

Mr. PERITO. What do you figure the cost is, per patient-year, to run your program at the present time?

Dr. JAFFE. Well, I can give you some exact figures, but I would like to give you some context in which to put them.

About 20 percent of our patients are living in a residential setting. At present, we use no traditional hospitals at $80 per day, but we have developed more efficient—and we think more rational—ways of handling patients who are drug abusers, since for the most part, correctly handled they are not acutely ill. Our residential settings still cost us about $10 to $12 per patient per day, or $3,500 per year.

Our outpatient methadone program costs between $800 and $1,500 per patient per year.

Again, I give you this range because the longer somebody is in treatment, if they remain continuously in treatment, the less costly it is to treat them. Once they become stabilized they get a job and they are functioning reasonably well.

At that stage, it does not take as much personnel or staffing to maintain that person in a functioning state. So that for a patient in the early stages of treatment, you have to have more input. As our program has matured, our outpatient cost per patient have actually gone down in spite of inflation.

Now, if you want an overall cost for treating 1,600 people with the research we have conducted, with our evaluation with our equipment costs, the cost is a little over $2.4 million to treat 1,600 people.

Again, I caution you that we only reached 1,600 January 1, so you are going to look at a mean patient load of about 1,400 over an entire year.

In a program that is expanding it is more rational to look at the projected cost when it stabilizes. At that point we expect that residential costs will be in the neighborhood of $3,000 to $3,500 per patient per year, and outpatient costs will be about $1,200.

Mr. PERITO. Do most of your funds emanate from the State of Illinois?

Dr. JAFFE. The State of Illinois.

Mr. PERITO. Do you receive any money for your program from the University of Chicago?

Dr. JAFFE. Only to the extent that the University of Chicago makes commitments to faculty people and provides fringe benefits to those faculty people, and these benefits that are very difficult to charge to grants. In that sense we are supported primarily by the Federal grant and the State of Illinois.

On the other hand, we sort of cannibalize a lot of the brainpower at the University of Chicago and have no way of compensating them for the unofficial consultation time and the time that we take up in trying to plan strategy.

Mr. PERITO. Doctor, how large is your staff at the present time, that is your full-time staff?

Dr. JAFFE. Well, there are approximately 135 total State positions at this time. At the university there are perhaps 40 positions. Our program was designed to maximize where possible community participation and the co-opting of whatever community resources could be brought to bear on this problem. Since there is a great reluctance of community people to donate their time to the State, we arrange to contract with specifically developed not-for-profit corporations to operate certain components of this program. Although we evaluate them and although we consider them operating arms of the program, they, in fact, constitute autonomous or semiautonomous not-for-profit corporations.

For example, Gateway Houses Foundation, which now runs three residential facilities for young polydrug users and heroin users, operates on a contract with us and Gateway, I believe, employs 18 staff people.

We have several other small organizations that are contracting with those.

I would guess, in the aggregate, their staff may come to a total of perhaps 30 people. So that if you want to total it all up it is perhaps about 220 people, give or take a few, to take care of this patient load.

Mr. PERITO. Doctor, in your prepared statement you mentioned the use of acetyl-methadol. Do you foresee that this long-lasting drug will someday be a replacement for methadone?

Dr. JAFFE. Not entirely as a replacement for methadone. Any new drug has its advantages and disadvantages.

First, I would like to emphasize that acetyl-methadol requires further study. It may very well be that an attempt to use it at much higher doses would cause some side effects. Furthermore, it is a drug whose primary advantage is its long duration of action. This means that it is a drug that can be given three times a week. No drug need be taken home and therefore no drug can be illicitly diverted. It has its advantages.

Mr. WIGGINS. Doctor, who developed this drug?

Dr. JAFFE. This drug has been around since the 1950's. It was originally developed by Merck, tested at Lexington, but because it was so long acting there was no further use for it in medicine. I was about to say its advantage turns out to be its disadvantage. Many people are not familiar with a drug that should not be given every 24 hours. If you give it every 24 hours you get cumulative toxicity, the drug lasts for several days, so that you have some overlap. Before this drug can be widely used it will take an educational program.

Mr. WIGGINS. You make an interesting point, and that is drugs that are really effective sort of price themselves right out of the market, don't they, because there is no longer a need for them if they solve the problem that they are created to solve? Is that really what you are saying here about this, that it was so effective that there was no market for it?

Dr. JAFFE. No; I am saying it was tested as an analgesic agent, a painkiller, and in some instances people were unaware that this was a drug that should not be given every day. When they gave it every day some patients developed cumulative toxicity. In effect, by taking it every day they received overdoses. This made it virtually useless as an analgesic. It was just too tough to use.

Mr. WIGGINS. This drug was developed by a private pharmaceutical house?

Dr. JAFFE. That is correct.

Mr. WIGGINS. For sale for profit, I take it?

Dr. JAFFE. It never reached the market in any meaningful way.

Mr. WIGGINS. Are you satisfied that we can or should rely primarily on the private researchers and pharmaceutical houses to develop a drug that you may need?

Dr. JAFFE. No.

Mr. Wiggins. Where else is it being done or should it be done?

Dr. Jaffe. Well, my experience has been that we do not have an effective mechanism for developing drugs which don't have a potentially significant commercial market. Drug houses do not want—and at least in my own experience—to develop drugs which have no market, utilizing their own resource and their own personnel and their own laboratory facilities.

On the other hand, I think we have precious little in the way of that kind of resource within the public sector. Generally, universities are not in the business of developing drugs.

Mr. Wiggins. What suggestions might you make to the committee if we are interested in encouraging the development of such drugs?

Dr. Jaffe. Well, I am not sure that I know enough about the development of pharmaceutical preparations to make really meaningful suggestions on it. I suspect there is some difficulty with respect to patent problems. As soon as you give subsidies to a commercial organization, it then loses the possibility of distributing and marketing that product for profit.

Mr. Wiggins. Well, could it be done alternatively or together at the National Institutes of Health or at universities operating under grants?

Dr. Jaffe. I think it could be, but traditionally universities have not been in the drug development business and it would mean thinking about what would be necessary to develop that capacity within a university.

The difficulty with many universities, at least until recently, is that Government encourages universities to apply for grants that run for 3 or 4 years. The university recruits people and brings them from wherever they were to the university. Their families are there. And then the grants run out. The Government just says, well, we have other priorities now. The university is left with the problem of staff people who nobody wants any more. They are surplus. This is a human problem.

If the university doesn't teach the development of pharmaceutical products, then, you know, it is very difficult to get it involved in developing this kind of thing.

There are, you know, schools of pharmacy, but whether or not they are in the business of developing drugs, I can't say. The development of new pharmaceuticals is not my area of expertise.

Mr. Wiggins. All right.

Chairman Pepper. Excuse me.

Apropos to what Mr. Wiggins was asking you, the suggestion was made the other day that it might be possible for the U.S. Government to give grants to drug houses to carry on approved research in areas where the Government desired such research be carried on, with the understanding that if the company ever profited from the distribution of that drug, the United States would get its money back, and in that way you would allow the company to retain the ownership of the patent while reimbursing the Government should the research produce a drug that is economically profitable.

Dr. Jaffe. That sounds like a very creative approach to me. I wonder whether or not it can be accomplished. Certainly it is the first time I have heard that suggestion. I know it has been a stumbling block for most pharmaceutical houses.

Chairman Pepper. Mr. Perito?

Mr. Perito. Thank you, Mr. Chairman. I have a couple of more questions along that line for Dr. Jaffe's consideration.

You had mentioned earlier during staff interviews that one of the problems was in developing new research techniques involving possible development of antagonists that researchers become terribly specialized, but then when the problem is solved there is no need for them any longer.

I wonder, could you expand upon this for the committee's benefit?

Dr. Jaffe. Yes; my point was simply that I think the situation is somewhat analogous to the space program. If Government decides it has a priority and wants to have a crash program, we can give out a great deal of money and get people to drop a secure position where they are teaching something or doing research on something which has long-range value. Those people come into the field and they get involved in the crash program. As soon as the problem is solved, they are out of business, and it is a human problem. I think it causes some reluctance for the best people to drop their work and get involved in it.

What you often get with this kind of crash interest is that you move marginal people who haven't done well in more traditional fields than this, which is precisely what won't get the job done. I have no specific suggestions as to how to get the job done. I think it remains a problem for Government to examine what it does about its human excess baggage, particularly when that excess baggage turns out to be its best brainpower that it recruits into solving public problems and then abandons.

I can say for myself that at this point I would have to stop for a number of months to review the literature, to prepare a grant application, to get caught up with a research field in order to get a grant. Since I moved into the public service sector in order to develop a delivery system that made use of known research which existed in 1967 and 1968 I, at least, have a university base. Other researchers may not have such an affluent base—I am not sure our university is affluent—but at least universities are willing to make that commitment of saying, "You may now sit back and get caught up with your own field in order to compete for a grant."

This is the difficulty. You move people into one thing, then you want them to switch. Nobody supports them during that interval while they are trying to reacquire the tools and get caught up with the technology in order to compete for other grants.

We certainly have gutted the universities in many respects with respect to their capacity to support people. They are very dependent on research grants. When these things are cut back they have no way of supporting those people who then are looking to find out what are the new areas that are of interest to the public.

Mr. Perito. Have you found an appreciable difference on your crime studies and the efficacy of your program in reducing crime or antisocial behavior? Have you found a principal difference between the arrest records that you have checked, and the actual instances of criminal behavior that you have found out through interviews with addicts?

Dr. Jaffe. Well, I can say that our interviews with addicts indicate that a great deal of crime occurs that is not reflected in an arrest. It is a very interesting kind of thing. When we establish rapport with somebody who, almost as a professional, engages in antisocial activity, they will be very honest with you.

We have seen that when we get people into treatment, even when they don't give up their antisocial activity entirely in the early months of treatment—and get a legitimate paying job—their antisocial activity still drops dramatically. They may not be arrested at all, yet we know they are committing crimes. Nevertheless they are committing them at half the rate they were committing them. So that sometimes you can get a great deal by talking to people that the arrest records will not reveal.

The arrest records are only a very approximate index of what is actually happening. There are discrepancies and they go in both directions. Sometimes people who commit virtually no crime manage to get arrested for some charge anyway, and somebody else who is more skilled continues to engage in antisocial activities for long periods and is not arrested at all. We have seen both of these kinds of things go on.

Mr. PERITO. Do you regard the concept of narcotic antagonists like cyclazocine and naloxone as a hopeful area in multimodality approach?

Dr. JAFFE. Do I regard the concept of narcotic antagonists as a hopeful area? The answer is that I do.

However, as I said several years ago, it is quite clear that in order to be effective in treating narcotics users a more appropriate form of narcotic-antagonist will be required. We will require an antagonist with minimal side effects that can be given in a way that will produce a blockade of narcotic effects for at least several days. Unlike methadone, patients don't want to come back to a clinic every day just to take a drug that blocks narcotic effects.

Some will. Some will for a number of months, but for the most part, after a few months they are convinced they don't need the antagonist any more, so they stop.

Chairman PEPPER. Excuse me a moment.

The effect of this antagonist drug is to prevent them from getting any sensation of satisfaction or euphoria from the taking of heroin?

Dr. JAFFE. That is correct.

Chairman PEPPER. Now then, could you add to that drug the quality of making the taking of heroin, again within a reasonable time, repulsive to the system; that is, causing a reaction of an unfavorable character?

Dr. JAFFE. I am not sure that we have such a drug, nor am I really certain that it would be useful. It would be interesting if we had one, but you see, they do have something comparable to that in alcoholism with Antibus, and the results have not been overly dramatic. If the revulsion reaction is severe enough it may be endangering somebody's life and you have an ethical question.

The antagonists have the advantage that you can perhaps persuade somebody to become involved with the antagonists, because it will not hurt him if he takes a narcotic. It merely blocks the effect.

Obviously, what it does not do is in any way allay this kind of narcotic hunger, this craving that some addicts seem to feel when they are not actively using or during the first year or so after they stop taking narcotics.

I want to get back to your question about naloxone and cyclazocine. Cyclazocine I think we have explored. It is a difficult drug to use. It is not a very forgiving drug. Its side effects require that the treaters have a considerable degree of skill. It still lasts only 24 hours. Given the effort required and given the level of patient acceptance, I don't think cyclazocine is a drug that in its present form we can hope to see widely employed.

Naloxone is a very promising substance, theoretically, in that it has no side effects at all. For most people it is entirely inert. The problem is that it is not very effective orally and it is short acting. Its cost is such that even if you wanted to take it every day in huge quantities, it would probably cost as much as the heroin habit that you are trying to treat. Therefore, naloxone in its present dosage form, to me, is not a very useful or a hopeful approach.

I might say that our hope lies with the entire family of narcotics antagonists, and there are literally dozens that could be investigated, one of which I am sure will be extremely potent, orally effective, and have minimal side effects.

If that then proves to be promising it could be converted into some kind of dosage form that might be effective for at least several days or weeks.

This is a matter of product development. I am sure it can be done if people are willing to put the effort into it.

Chairman PEPPER. And the money.

Do you think it would be in the public interest for the Federal Government to expand its research funds to encourage the appropriate people to develop those leads that you are talking about?

Dr. JAFFE. I think if we do not look into them we will be remiss.

Chairman PEPPER. Mr. Blommer, do you have any questions?

Mr. BLOMMER. Thank you, Mr. Chairman.

Doctor, I believe Dr. Dole of New York has said he believes that about 25 percent of the heroin addicts in New York would benefit from methadone maintenance. I wonder if you could comment on that statement and tell the committee what type of heroin addict you believe should be put into a methadone-maintenance-type of program?

Dr. JAFFE. Well, I will comment first on the 25 percent. I don't know how Dr. Dole obtained his figure, but we came out with almost the same figure, based on a very empirical 2-year study of heroin users in the Chicago area.

In other words, we admitted everybody who came. If you came to the door, you were admitted. We thought, based on epidemicologic studies in the commounity, that about half of known active narcotics users would seek treatment, and, of those, over the long run about half would obtain substantial benefits. So half of half is 25 percent. This is based on or data of several years and several thousand patients.

What kind of patient would benefit is much more difficult to answer, because it is very hard to predict.

Mr. WIGGINS. Let me interrupt, because I want to get something off my mind.

Dr. JAFFE. Yes, sir.

Mr. WIGGINS. Would you say that any person who is inclined to take heroin would be better off taking methadone instead of heroin?

Dr. JAFFE. I am not sure what you have in mind when you say any person inclined to take heroin.

Mr. Wiggins. A lot of people are inclined to take heroin for very poor reasons, but they do it, nevertheless. Is methadone better than heroin?

Dr. Jaffe. Well, oral methadone is a lot safer than heroin bought from a pusher on the street without any question. If I had someone absolutely committed to finding out how a narcotic drug felt and you presented me only two alternatives, either they wanted to buy some heroin on the street, cook it, or take a swallow of oral methadone, I think the answer would be obvious. They would be a lot better off and safer taking methadone. But I don't know if that is what you are driving at.

Mr. Rangel. Let me ask this: Would your answer be the same if the heroin was being taken orally, notwithstanding the difference in reaction?

Dr. Jaffe. No; if these were known dosages of heroin and methadone, both taken orally, I don't think that it really makes much difference at all.

Mr. Rangel. Would it make much of a difference if the methadone were injected?

Dr. Jaffe. Oh, yes. Injectable narcotics produce some very reinforcing effects in the sense that you can do research on animals and you can show that animals, given an opportunity to inject intravenously any one of the narcotics, learn very quickly to keep injecting those drugs.

Mr. Waldie. Doctor, may I interrupt you at this moment?

In response to Mr. Wiggins and Mr. Rangel's question, I understood you to say that if you had the same control over heroin in terms of quantity and the manner in which it is administered as you have over methadone, the man taking heroin would be in no better or worse position than the man taking methadone?

Dr. Jaffe. No. The question was in response to a single dose.

Further, you are talking about chronic administration.

Mr. Waldie. Let me phrase the question this way, then: There is a concern among some people, and I share it, that we are substituting one addictive drug for another. Is there some advantage to that substitution, to substitute methadone for heroin, other than the advantages that you have stated, that there might be an infection because of the intravenous injection and there might be adverse effects because of the impurity of the heroin?

Dr. Jaffe. Oh, yes.

Mr. Waldie. Are there other results that are beneficial for use of methadone rather than heroin?

Dr. Jaffe. In our present context, without any question. There are two.

First of all, the oral absorption of heroin is somewhat erratic. Furthermore, the drug—and I am not sure this has been studied in detail—is probably not even in significant quantity going to have smooth duration of action if you were to give it once a day under observation.

I mean, if you were still in the position of looking for something which lasts 24 hours, of letting people take it home for their own use. As soon as you begin letting people take it home you have trouble with illicit diversion and accidental ingestion.

Furthermore, in our present context we are deeply concerned about the intravenous use of illicit heroin. The use of methadone provides one very pragmatic possibility of knowing when patients continue to use illicit heroin. In our program, patients on methadone have their urine tested. We know a patient is taking heroin in addition to methadone. If we weren't giving them methadone—but were giving them oral heroin—we would have no way of knowing whether they continue to take intravenous illicit heroin.

Mr. WALDIE. Let me ask one question. Are the results on the individual of taking methadone less debilitating than the results on the individual of taking heroin?

Dr. JAFFE. Let me try to state this as precisely as I can.

Mr. WIGGINS. That is a clinical setting, right?

Mr. WALDIE. Right.

Dr. JAFFE. No one, to my knowledge, has done adequate, careful, controlled studies of large doses of oral heroin. So we are always forced to compare the British experience with self-administered intravenous heroin with our own experience of regular administration of oral methadone.

So the two situations are not comparable.

To the best of our knowledge, intravenous heroin is not a good drug sociologically or psychologically, because the ups and downs of a short-acting drug get people going from a "high" to a little bit "sick" and then they want to be high again. It is not a drug permitting easy stabilization and functioning—the stabilization of the kind that lets citizens take care of business.

Methadone does permit that when used orally.

Mr. BRASCO. May I ask one question? You sort of confused me as to what was said, at least as I understood it, by Dr. Gearing yesterday when we spoke about taking heroin orally.

If I understand correctly, Dr. Gearing said there would be no effect. Exactly what is the effect of taking heroin orally?

Dr. JAFFE. Taking heroin orally?

Mr. BRASCO. Yes; has it the same effect that you get when you use it intravenously?

Dr. JAFFE. No.

Mr. BRASCO. What effect does it have?

Dr. JAFFE. Well, the effect you get when you take a drug intravenously, a very short onset of action.

Mr. BRASCO. No; I am talking about taking heroin orally.

Dr. JAFFE. Heroin was given orally. It was used in this country until about 5 or 10 years ago when we ran out of old stocks for cough medicine.

Mr. BRASCO. I understood her to say—and maybe I am laboring under a misapprehension—that if you take it orally there was basically no effect.

Dr. JAFFE. From oral heroin?

Mr. BRASCO. Right; as opposed to taking the methadone orally, you would have the stabilizing effect and it would prevent the craving for the heroin. When you take the heroin orally, I got the impression that you were sort of in the same position as not having taken it.

Dr. JAFFE. Well, I think you are asking two different questions. One is: Is heroin as effective a drug taken orally as by injection? The answer is that its oral to parental ratio is not as high, meaning that it takes a lot of heroin orally to give you a blood level so that you get an effect. That is also true of morphine. It is also true of many of the standard narcotics that we use in medicine.

If somebody really has pain, you would have to give them a shot of a drug like morphine. Methadone is one of the few drugs in the narcotic analgesic group that has a good oral potency, meaning that you don't have to give a tremendous amount of it by mouth to have an effect.

Mr. BRASCO. As a practical matter, what would one take heroin orally for?

Dr. JAFFE. The same way you take codeine, you give a little——

Mr. BRASCO. We are talking about people addicted to drugs.

Dr. JAFFE. Nobody would ever take heroin orally if they were addicted. It is too inefficient. People sniff it, some people smoke it, but probably nobody would swallow it, simply because it is not efficient. The body metabolizes it before it gets a chance to be active.

Chairman PEPPER. Mr. Waldie, have you any questions?

Mr. WALDIE. Just one question, Dr. Jaffe. If the Federal Government were to participate in some way in this whole problem with which you have been involved, would you discuss, No. 1, the areas in which you think our participation would be most beneficial; and No. 2, would you believe in terms of priorities of expenditure, which would be the nature of our participation, that there is one portion of this program that is more deserving of expenditure than other portions? Could you comment on those two areas?

Dr. JAFFE. Which program are you referring to?

Mr. WALDIE. I don't know. I want you to tell me. I want to to tell me what the Federal Government, in your view, should interest themselves in most in terms of priority or expenditures.

Dr. JAFFE. Well, in the entire area you could divide it into things like direct support of treatment, development of research directed toward the development of treatment and control systems, direct control of drug availability and training; training both for research and treatment.

Now, obviously there are some areas that you could say need priority. Our experience has been that patients who are chronic heroin users who want treatment with methadone should be given that treatment, because it is better for them and everybody in the community, and therefore that should be a high priority for the Federal Government to see that the funds are there to provide sensible, rational treatment.

Now, if there are other treatment areas that can be demonstrated to be effective for those people for whom we will say methadone is not effective, such as young polydrug users who have not been on drugs very long, people who just don't want to be on methadone, people who want to come off methadone. In our experience many, many people feel they have had their lives stabilized, they would like to come off. Such treatments should be provided or developed if they do not now exist. That should be done and the Federal Government should see that they provide that.

There are some problems in communities. I cannot speak officially for any State or community, but I do know there are certain obligatory expenditures they cannot get out of. I read in the paper that when the Federal Government decides it will not support welfare or something else, the State must do that, and therefore it can only trim optional kinds of things, mental health, treatment of addiction, and education.

So that the Federal Government has to realize that as it shifts its priorities, the States are in a reciprocal relationship. Communities also set priorities and traditionally these treatment programs have been viewed as optional; that is, it is optional rather than legally required that there will be narcotic treatment programs.

Mr. WALDIE. One final question, Doctor.

Do we have enough experience yet to know whether it is more difficult, at first, to an individual in getting off of methadone addiction than heroin addiction, for example?

Dr. JAFFE. The withdrawal syndrome from heroin, given the doses that most people use in the street, is pretty much a thing that is over in a matter of a few days. The difference is that the relapse rate is phenomenally high. Certainly people who withdraw from methadone are complaining mildly, but somewhat longer. It is dragged out over a period of weeks or so.

However, our experience has been when you stabilize someone on methadone and he has gotten to the point where he has a job and is back with his family, and there are a number of social supports, and he has been accepted by the community as a responsible citizen he may have a tougher time when he withdraws from methadone in the sense that it is sort of a dragged-out situation, but the probabilties of being able to remain stable may be slightly higher.

I don't think enough work has been done as yet with trying to take people off methadone to try to answer that question in any definitive way. It is one of the research areas that will deserve attention.

Mr. WALDIE. Thank you.

Chairman PEPPER. Mr. Wiggins.

Mr. WIGGINS. Doctor, I want to commence with a hypothetical question. Let us suppose, hypothetically, that methadone were totally substitued in our drug culture for heroin, but that it was used in exactly the same way, the shooting of it, using dirty needles, cutting of it, using impurities and other things, let's suppose it happened that there was a total substitution in that way for heroin; would we be better off or worse off?

Dr. JAFFE. No; the advantages of methadone are not nearly as pharmacologically——

Mr. WIGGINS. Just respond to that question, better off or worse off?

Dr. JAFFE. We would be no better off. I don't think we would be any worse off. It is hard to picture a situation much worse off.

The advantage of the present situation is as much in the system by which the methadone is controlled—its supervision—as in its pharmacological differences.

Mr. WIGGINS. I think it is an important question, because conceivably we could end up in that position. I would think there is a possibility we might be better off. At least the narcotic would be produced by local manufacturers who would be subject to somewhat more control than Turkish farmers. Perhaps the Mafia or some other organized criminal activity would not be so intimately involved in its distribution. These may not be insignificant advantages.

Dr. Jaffe. I would say that I can't conceive of a situation, in knowing what we know, where we would permit the situation to deteriorate to the point that methadone would be that readily available for intravenous use.

Mr. Wiggins. Many of us have harbored the suspicions, at least, that methadone programs proceeded from the assumption that the only way to take crime out of a drug business is to make the drug available to addicts at a reasonable cost and to maintain their habits. For many reasons, however, some of which were political, we just couldn't bear to provide them heroin as did the British, so we came up with a substitute called methadone; is there any truth in that suspicion?

Dr. Jaffe. I think that is an oversimplification that misses many of the critical distinctions between methadone and heroin.

First of all, the pharmacology of this drug is such, as I pointed out before, that you can get somebody psychologically stabilized and the contrast between a fairly stabilized individual taking an oral medicine which has very few peaks or valleys, and somebody taking a drug, short-acting or intravenous, going up and down several times a day, is dramatic. People on this smooth-acting drug can function in terms of devoting their energies to productive activity.

People going up and down, taking intravenous doses, really do not function well.

Second, we can supervise a long-acting effective oral drug, meaning that if we want to, and if we feel it absolutely necessary, we can prevent methadone from being on the street. Very often, frankly, at much too great a cost to the rehabilitated patient.

Mr. Wiggins. I would like to know your views on how we can prevent methadone from being easily available on the street subject to being shotup, cut, sold at a profit just like heroin.

Dr. Jaffe. Well, No. 1, the dosage form of methadone could be so uniform you can dissolve it in fruit juice and it is very hard to extract and to in any way dilute it and shoot it.

Mr. Wiggins. Say that again. Is it difficult to shoot it?

Dr. Jaffe. If you dissolve methadone in 4 ounces of orange juice and then try to concentrate it so that you can get it into a syringe, you get a gummy, sticky mass. There is nothing you can do with it. That is the original way it was developed, and many of the original programs went to great pains to see that this was done.

Second—and I must say that as the volume of patient load increases it is becoming difficult to do this, and it may be a matter of funding and other things—initially every new patient came to a clinic once a day. He drank the methadone under supervision. The only medicine on the street was in his belly. There was no medicine to sell or illicitly distribute. Theoretically, only the most stabilized patients are given the privilege of taking methadone home with them.

Mr. Wiggins. But the fact is that methadone is on the street.

Dr. Jaffe. I can't conceive of a situation where you get uniform adherence to a set of regulations, no matter how sensible they may be. You always have practitioners who won't adhere even to a very sensible, rational set of regulations; and you always have a very small minority of patients who are mavericks, who don't have a sense of responsibility.

I have presented one generic kind of solution to this problem. The generic solution is a longer acting substance. If you had a methadone that only had to be given three times a week, people for a while will come three times a week, and there is no drug on the street—none, zero.

Now, we have one such drug——

Mr. WIGGINS. Excuse me.

I take it that a private physician could nevertheless order from a pharmaceutical house a case of methadone and dispense it subject only to his personal medical judgment on the need for it; is that right?

Dr. JAFFE. No; I would say there is some vagueness under the Federal regulations. Most States are able to delineate the difference between treating a temporary syndrome—such as somebody waiting to go into treatment, or treating someone with a chronic painful illness—and maintaining a narcotics user on methadone with greater precision.

Therefore, a physician would be in violation of State laws in most States.

Mr. WIGGINS. What controls operate on a private physician other than his own judgment in dispensing of methadone?

Dr. JAFFE. Well, in our State we have defined the chronic treatment of addiction with narcotic drugs as not yet an established routine medical procedure. So that in a sense it is acceptable as medical treatment only in programs approved by the department of mental health. If that physician does not seek such approval and adhere to a protocol, he may be subject to prosecution under our uniform drug law.

Now, it may be that he could fight that successfully. We don't know. But——

Mr. WIGGINS. First of all, is this a matter of State regulation?

Dr. JAFFE. Yes.

Mr. WIGGINS. And, therefore, there may be 50 different sets of regulations in the country?

Dr. JAFFE. That might be the case. That is for 50 or so.

Mr. WIGGINS. Is there any legal prohibition against a doctor who is so inclined from purchasing great quantities of methadone?

Dr. JAFFE. Not to the best of my knowledge.

Mr. WIGGINS. If that doctor were so inclined, what legal prohibitions preventing him from dispensing it at his front door or back door?

Dr. JAFFE. I suppose the only prohibition would be his concern that a promising medical career at which he earns a reasonable living could be permanently terminated by successful prosecution under a felony charge of illicitly selling narcotics.

Mr. WIGGINS. Is it a defense, so far as you know, to that charge that the doctor believes in the exercise of his professional judgment that the person before him was an addict and who would profit from the use of methadone?

Dr. JAFFE. It would be a defense, I suppose, only if a substantial number of his professional colleagues in that community stood up and said this is the good practice of the community and it is in the best interests of the patient and community. The chances might be he would be convicted of a felony.

Mr. WIGGINS. Given the situation as you described it, are you satisfied that is an adequate control?

Dr. Jaffe. I think that more work has to be done in delineating the conditions under which these drugs can be used for the treatment of addiction.

I am not satisfied with our current application of a IND, investigational drug.

On the other hand, I have no pat solution for the best way in which our health care delivery system can become involved in delivering the services to the advantage of the patient and the community.

I mean, we have to protect both, and we have to serve both. I think more work has to be done on it. I am not satisfied with our present controls, nor would I want to see us return to a purely repressionary police state during which no physician would ever let an addict into his office for fear he might be some kind of local police informant, and that if he treated him in any way he might be prosecuted.

That was an era of sheer terror for physicians, and the mere fact somebody might be an addict was sufficient reason for them to pick up the phone and call the police and say get this whatever-it-is out of my office.

Mr. Wiggins. As I recall it, when they operated under a system of private dispensing of heroin the abuses were so widespread that the only way to control it was to confine it to a clinical setting.

Dr. Jaffe. Well, I have no personal knowledge of what went on. I read the reports. I know the details. I am not sure that you will get a consensus on what really went on.

It is obvious that there is no way of dispensing or prescribing short-acting drugs without risking significant illicit diversion. We have said the best clinics under the best controls, trying to dispense heroin, would open themselves up to illicit diversion, that you need a long-acting drug that you can supervise and preferably one that can only be used orally. We have such pharmacological substances available. It has to be realized that methadone wasn't even known to be an effective narcotic drug until the late 1940's, in this country.

I mean, some of the pharmacological knowledge that we are talking about never existed in the 1920's when they tried these clinics. So that one couldn't even experiment with the possibility of a carefully regulated controlled system of treating those people who are willing to be treated in this way. I think that we are now in a different technological ball park. We have to stop harking back to old days, when we used old technology and look at what we can do now, what our potentials are and what is the best way to strike the best balance in treatment and still, at the same time, protect the community from widespread illicit diversion of the drugs we are using for treatment.

Chairman Pepper. Mr. Brasco, do you have any questions?

Mr. Brasco. Yes; I wanted to ask Dr. Jaffe: In connection with the methadone program, would there be any great difficulty, given the fact that there is agreement over the danger of abusing the use of methadone in the street, why is it not possible, at least from the point of view of stopping those who are in treatment from proliferating use in the street, having users report once a day to take the methadone at the clinic so we know we can stop that kind of abuse?

Dr. Jaffe. I think it is a fine question. It has been raised a number of times.

The answer tends to be a very practical one, which is that for the first 3 or 4 months you do insist that somebody come every day. But if you are successful, if he begins to view himself as a productive citizen, if he now has a job and he has to get to that job on time and come back, and your clinic doesn't happen to be either near his home or near his job, you are asking him to somehow get to your clinic once each day. It may be very difficult for you to keep the clinic open long enough for him to get there every day. It may be, for example, impossible to get nurses to work in certain communities after sundown.

Mr. Brasco. It becomes a problem of logistics?

Dr. Jaffe. Primarily a problem of logistics. It also becomes a problem of self-image. We have had people in treatment for 3 years, working every day, earning retirement benefits. They haven't used any drugs and they are still wondering why everybody else is trusted with phenobarbital for epilepsy, and other people are trusted with all kinds of drugs.

Mr. Brasco. Then you are saying it has a definite effect in the rehabilitation program if the program doesn't give that basic show of trust?

Dr. Jaffe. I think for many people that is the case. But I am not willing to push the logistics aside, because logistics happen to be paramount in a place like Los Angeles, which has virtually no public transportation system. You are, in effect, saying, "We want you to get rehabilitated, but so rehabilitated you can have a car to get to the clinic every day."

Chicago has its own transportation problems, as every urban area does. They just can't afford to come to the clinic every day.

Mr. Brasco. Doctor, one other thing now.

In connection with that, then, and I don't know if you have any statistical information on it, but what is your experience for the potentiality of abuse of allowing the methadone to get out on the street illicitly, coming through those in treatment?

Dr. Jaffe. It is minimal, but it is not zero.

Mr. Brasco. Right.

Dr. Jaffe. I want to emphasize that anybody who is realistic knows that we are not treating a group of Boy Scouts.

Mr. Brasco. So what you are saying is it is a tolerable risk?

Dr. Jaffe. Let's ask what we are trading that risk in for. Let's say 5 percent of people leak their methadone. Primarily 85 to 90 percent of that leaked methadone is going into the people who are currently using heroin.

So, fundamentally, the methadone will remain in competition with the illicit heroin market for the time being, and that really doesn't represent a major social catastrophe at this point.

Mr. Brasco. You said something before that was interesting to me. You said that when they dispense or when you dispense methadone you use it in—or mixed with—orange juice.

Dr. Jaffe. Fruit juice.

Mr. Brasco. And that it is most difficult to concentrate, that you get a gummy substance?

Dr. Jaffe. That is true.

Mr. BRASCO. Then for those who are shooting, what are they doing, using the mixture of the juice with that or some other form of methadone which is dispensed, such as pills?

Dr. JAFFE. That is a fundamental point. Not everybody is as concerned about this issue as we are, and therefore some people are using different forms of methadone tablets, methadone diskets, which may, in fact, at least in their presently constituted form, be so constructed that it is possible to create an injectable form from it. We know that when once dissolved in fruit juice of various kinds, it becomes impossible to extract methadone with ordinary techniques.

Mr. BRASCO. So then as a starter, if we got to the point where methadone was only dispensed with fruit juice, as you were talking about, and I assume both are equally effective, then we would be taking a long step in the right direction in terms of having abuse of it reduced?

Dr. JAFFE. May I make one comment? Let us avoid rigidity. It is always the exception that makes life difficult. We have a patient who, after working for 2 years, wanted to visit his wife's family in Europe. I would trust him with my life. I know him very well and his family and his wife.

If we gave him 21 bottles of juice—he is going for 3 weeks—No. 1, it would spoil; and No. 2, what do you think customs would say about these 21 bottles of juice? You tether him to a clinic. There has to be some form used for the exceptional case, and 21 little tablets that would handle the situation, make it possible for him to function as a human being in the exceptional situation.

Mr. BRASCO. Assuming that all of them are not going to Europe, and I take that to be a fact——

Dr. JAFFE. That is true for the overwhelming majority.

Mr. BRASCO (continuing). So that we still would be taking a long step in the right direction with this little aside that you have in terms of possible exceptions cropping up?

Dr. JAFFE. Right. I am not unaware this is a legislative group. So I am saying I want to avoid seeing things couched in such language that an exception automatically becomes a crime, because as soon as you do that you really reduce the possibility of effective treatment.

Mr. BRASCO. No; I wasn't talking about that. I was trying to define an area where we might recommend something.

Dr. JAFFE. With strong recommendation for the exceptional cases it would be very helpful and would certainly reduce some of the present problems.

Mr. BRASCO. Just one last question.

When you use methadone intravenously, do you have the same experience in terms of it becoming a short-lasting kind of effect as with heroin?

By that I mean if you start to shoot it, would you have to use it several times a day?

Dr. JAFFE. To the best of our knowledge. It is a little longer acting, but you certainly would have to use it several times a day. In practice, people who use methadone could use it several times a day.

Mr. BRASCO. Thank you. I have nothing else.

Chairman PEPPER. Mr. Steiger.

Mr. STEIGER. Thank you, Mr. Chairman.

I realize we are running late.

Doctor, I assume you have personally interviewed a good many of these 1,600 patients.

Dr. JAFFE. In the beginning I had enough time to see a lot of them personally. I must say as the program grows I become progressively more insulated from the direct patient care.

Mr. STEIGER. Do you have any experience with a methadone addict who reported into the program——

Dr. JAFFE. Using methadone?

Mr. STEIGER. Yes, sir; a man addicted to methadone?

Dr. JAFFE. Yes, certainly.

Mr. STEIGER. Were you able to ascertain how he became involved with methadone or how he acquired it?

Dr. JAFFE. Well, some of them buy it illicitly on the street. Where they get it is not clear, but obviously some people have, as they have for many years, come to doctors with stories of chronic pain, with things that would justify the prescription of oral methadone.

Furthermore, once in a while, before we had a program, there were physicians who, I think in all good conscience, knew somebody who was working and functioning and the alternatives were heroin or methadone. The physician would say, "I understand you are trying to get into a program," and for a few months he would prescribe this medication. He would call us up and say that this man was on methadone for several months, and say, "I have been prescribing for him, this is the dose, and the sooner you take him into the program the better off we will all feel."

Mr. STEIGER. Did you run into any heroin addicts who had been acquiring a regular source of methadone from a licensed physician, and because of either the death of a physician or his stopping, reported into the program?

Dr. JAFFE. Oh, that is not uncommon.

Mr. STEIGER. I am not as concerned as my colleagues are that the responsible clinics are going to leak a sufficient volume of methadone to create a new hazard. I am very concerned that there are physicians, regardless of their motives, who are continuing to prescribe methadone and/or heroin. I wonder from your experience, again on the basis of interviews, if you feel there would be any merit in legislatively limiting the dispensing of methadone and heroin to licensed clinics and thereby making an absolute prohibition against the private physician dispensing it?

Dr. JAFFE. Well, first of all, there isn't any heroin ever dispensed or prescribed. There is none in this country. It has been outlawed. There was a little bit of stock in Philadelphia for a few years after it was outlawed, but there is none at the present time.

I am generally opposed to any absolute legal prescription of something, because then you run into a situation where you have done what you set out to do, you have rehabilitated former heroin users and they are offered a job in some community where there is no clinic. He can't accept that job, and he can't in effect, change his life style and start all over again. Under appropriate conditions, if there were no absolute medical prescriptions, he might be able to make a private arrangement with the physician who would handle this problem on an individual basis in a carefully regulated way.

Without that possibility this man is limited to any area that has a clinic and largely these clinics are limited to the large urban areas that can sustain a clinic of a hundred or so people.

Mr. STEIGER. But isn't it conceivable that we could extent the authority to permit the clinic to approve the physician for that specific patient?

Dr. JAFFE. That becomes another issue. In other words, what you are saying is that no physican unaffiliated with an approved program would be permitted to prescribe methadone for addicts.

Mr. STEIGER. Based on your experience, in terms of volume of illicit methadone, isn't there a far greater propensity for the private physican to be the source of the illicit methadone than there is for the clinic, the approved clinic?

Dr. JAFFE. Well, I think in terms of the ratio of patients treated and the amount they let leak on the street. I would say that may be true. Obviously, in terms of absolute numbers, a program treating 1,600 people will be responsible for more leakage than any one physician treating a few patients.

In other words, if he is only treating five or six people, a single physician probably will not have as much leakage as a program treating 2,000.

Mr. STEIGER. If those five or six people are dealers, themselves?

Dr. JAFFE. Well, the physician would have to be rather naive.

Mr. STEIGER. How about dishonest? How about the dishonest physician?

Dr. JAFFE. Dishonest physicians should be treated like any other dishonest individual?

Mr. STEIGER. But right now he is not violating anything?

Dr. JAFFE. As I said before, I think we have to think through our regulatory procedures so that the dishonest physician is treated for what he is. He is a pusher, operating under cover of his medical license.

Mr. STEIGER. Right now, except for whatever State regulation may exist, he would not be in violation, as Mr. Wiggins pointed out, he could appeal to his medical judgment and say this, in my best judgment, was what this particular patient needed, even if it obviously wasn't?

Dr. JAFFE. Well, I certainly think we have to think through how we will control the dishonest physician, there is no question about that.

Mr. STEIGER. Would you agree there is a question of the dishonest physician who could be a source of methadone?

Dr. JAFFE. How could one deny it?

Chairman PEPPER. Mr. Mann.

Mr. MANN. No questions.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Two quick questions, Mr. Chairman.

Doctor, I missed the first part of your testimony. Are any of your cases ambulatory when they come to you?

Dr. JAFFE. All of our cases are ambulatory when they come to us.

Mr. WINN. Then you mentioned, I gathered, those that are now on methadone?

Dr. JAFFE. People who are in a residential setting can be on methadone or withdraw from methadone in the same facility. We have no difficulty with that.

Mr. WINN. I missed the point. I thought you said these were not people under hospital care.

Dr. JAFFE. No; because it is not a hospital. It is a residential setting, staffed, but we don't have round-the-clock nurses or elaborate medical equipment. This is one way of reducing the cost. We don't have, in a residential setting of relatively healthy people, a little buzzer you press and have three people running with an emergency cart.

Mr. WINN. After 3 days they can go home?

Dr. JAFFE. In an emergency setting?

Mr. WINN. Yes.

Dr. JAFFE. No; they might live there about 3 or 4 or 5 weeks, trying to straighten their lives out.

Mr. WINN. They come from all over the country, outside the community you serve?

Dr. JAFFE. Yes. We only have four or five residential facilities in the State.

Mr. WINN. All right. Are these black or white, or both?

Dr. JAFFE. We have all integrated facilities.

Mr. WINN. Thank you.

Chairman PEPPER. Mr. Murphy.

Mr. MURPHY. Doctor, I just returned from an around-the-world trip with Congressman Steele from Connecticut, and the purpose of the trip was to impress upon these countries that are engaged in opium growing to curtail their production, and in fact eliminate it.

One distressing point we came across in Southeast Asia is that the type of heroin that our troops are becoming addicted to is of a purity of 94–97 percent. In fact, they don't even have to mainline it, they are snorting it and they are smoking it.

My question to you, Doctor, is: If this is compared to a 6 or 7 percent purity injection of the United States, what is the outlook or the prognosis for those fellows when they come back to the States. Would you just have to increase your intensity using the methadone treatment?

Dr. JAFFE. No; eventually you can stabilize people on moderate doses. The doses of methadone that are normally used for the heroin users that we now have, will be adequate to handle people who start off using even pure quantities of heroin. Their habits aren't that great and they can be brought down to a stabilization level with very little difficulty.

I don't anticipate the need for modifying dosages in any way, if one decides that is the best way to treat a young Vietnam veteran who has never had any other treatment. I don't mean to imply that would be the routine or immediate response to finding out that a veteran has used heroin in Vietnam. It may be that you use this approach only when other things have failed. This is still to be determined.

Mr. MURPHY. Thank you.

Chairman PEPPER. Mr. Sandman.

Mr. SANDMAN. If an addict had the choice between heroin and methadone—I gather there isn't any choice—he would choose heroin?

Dr. JAFFE. Intravenous heroin versus oral methadone? I think most addicts would do so; yes.

Mr. SANDMAN. From what you say, methadone is used on some one already addicted to heroin?

Dr. JAFFE. That is how we use it; yes.

Mr. SANDMAN. Have you had any experience where you have had some people come in who are addicted only to methadone?

Dr. JAFFE. People who have never used any other drug? Yes; a few such cases.

Mr. SANDMAN. But they are rare?

Dr. JAFFE. In this country. They are not so rare in England where people are beginning to prescribe methadone that can be used intravenously.

Mr. WINN. Is it accurate for me to assume from your testimony that in the absence of some other way or some other drug you feel methadone is serving its purpose in allowing the heroin addict to at least be able to carry out his responsibilities of life; is that your position?

Dr. JAFFE. That is our primary position. It allows many of them to function, but we are not presenting it as a panacea. Once you get everybody who can be effectively treated with methadone, treated and functioning, you will still need other programs for those people who have not "made it" with methadone or who are still not interested in methadone.

Mr. WINN. You are not claiming it is the end result, I understand, but in the absence of something better you feel it is?

Dr. JAFFE. I have made the point and I think it should be available to all those people who would like to give it a try and who qualify for it.

Chairman PEPPER. Mr. Rangel.

Mr. RANGEL. Yes.

Doctor, about the 1,600 narcotics users, you say they are integrated, or were you talking about staff?

Dr. JAFFE. Staff, too.

Mr. RANGEL. Well, with the users, what would you consider the ethnic breakdown of your State's program, in the patients?

Dr. JAFFE. Well, I haven't looked at it for several weeks. It was, for the first couple of years, about 72 percent black. A small percentage are Puerto Ricans, Mexican Americans, and the rest white.

Mr. RANGEL. Considering this ethnic breakdown and considering the population of your State, this sampling reveals an overwhelmingly high minority breakdown. Using minority as it is generally used, this is an extremely high minority figure; is it not?

Dr. JAFFE. I think that might be misleading. Our program, as I said, began as a pilot program. We were going to diagnose the community. We were not going to start treating the entire community or State. The question was: Where shall we put our initial facilities? The decision was made to locate this around the University of Chicago, where the University of Chicago could lend its brainpower to the development.

So having put it in the area, having made our facilities immediately available in a geographic area where 85 percent of the population is black, it is not surprising that we had an overrepresentation for the program as a whole. They had the most immediate access. They were given first priority because they were there.

It wasn't until a year and a half later that we had the first treatment facility on the northside of Chicago where Caucasians, Puerto Ricans, and Mexican Americans could find it equally accessible.

Mr. RANGEL. But if you were to project not only your State's but the Nation's methadone treatment programs, would not that same ethnic breakdown be bound to exist on a national basis?

Dr. JAFFE. It would be very hard for me to really project it nationally. I would guess that in most of the large urban areas of the East and perhaps the Midwest there would be an overrepresentation of black patients. However, in the Southwest it would be Mexican Americans.

Mr. RANGEL. But they would be people in the lower economic level of American life; wouldn't they?

Dr. JAFFE. I think until very recently heroin addiction was primarily a problem of the lower socioeconomic groups.

Mr. RANGEL. Now, with all of your priorities in terms of where Federal money should be spent, I think you listed research and training. Do you not think that perhaps the causes and the reasons why a particular economic group is prone to become addicted to drugs should not be one of the priorities?

Dr. JAFFE. That was assumed under research. I talked about research into epidemiology, into what is responsible for the epidemics, what is the natural history of these things, and how to respond to these to epidemics.

Under the research I listed those questions and I recall saying the first priority should be to make treatment available to everybody who wants it.

Next we are to find out about why this happens in the neighborhood it happens in and what the trends are.

Mr. RANGEL. I am wondering, Doctor, if a different economic group, that is, a more affluent economic group, were afflicted by a similar type disease, whether or not we would be talking about making methadone so available as a possible cure to disease or whether or not there would be a concentration on research rather than just expansion.

Dr. JAFFE. Well, I can only tell you that everyone I have talked with, given the option of waiting for more research with the possibility that in the meantime their children or relatives might die of overdoses or go to jail, opts for "Let's take what we think is most effective and make it available."

Mr. RANGEL. I don't see where you have too many choices, because you have the problem that you have to deal with and the best thing American research has come up with has been methadone; that is your professional opinion?

Dr. JAFFE. Well, for large-scale operation; yes.

Mr. RANGEL. But in terms of national research, are you satisfied that this Nation is doing all it can to research a solution to the drug problem that we are having at the present time?

Dr. Jaffe. Well, we have pointed out areas where more could be done. I think that looking at it from the point of view of somebody who has reviewed research grants and applications and looked at the funding, all the good brainpower that wants to get into the field, you know, is able to get involved.

The issue is getting more brainpower to bear on the subject.

Mr. Rangel. My last question is: Are you satisfied that the fact that the victim of this epidemic happens to be in the low economic strata of our society has not affected the determination of our America's research in doing as much as it can? You don't believe it would be any different if we were dealing with a more affluent group?

Dr. Jaffe. Well, I suppose that it is already dealing with a more affluent group. There are a number of very wealthy suburbanites who are extremely concerned. But I think if you escalate it into a crash program, a tremendous amount of money into research per se, hoping that the competent researcher will materialize, you may be disappointed. You need to gear up for these things and support people. I think all you would do with crash programs is bring in a lot of marginal people.

If you have a phased planning and say, "Yes, we are concerned and at this stage we will have to bring more people into it." Then, in fact, you have a program that will bring more people into it.

I don't think that research in this area is being underfunded, to answer your question more directly, because the problem of heroin addiction affects primarily lower socioeconomic groups.

Mr. Rangel. Thank you.

Chairman Pepper. We are running considerably behind here.

Do you have any questions? Mr. Brasco?

Mr. Brasco. I just wanted to ask Dr. Jaffe—and if he answered it before I will get the information from someone else.

We were sort of interrupted when we were talking about the possibility of developing a longer lasting drug, other than methadone, and you said you didn't want to promise anything, and at that point you went to something else.

Did you get to that, because I was a few minutes late and I am wondering what the prognosis is for developing it.

Dr. Jaffe. I think the prognosis is excellent. I think it is only a matter of time before we will be able to discuss which specific drugs might be able to be used, and which would have significant advantage.

Mr. Brasco. Are you saying we have them now?

Dr. Jaffe. Yes; we are working on them. We named one that is under study, that has been under study for a year. There are still some questions to be resolved that; yes, this is a drug that can be used on a wide scale.

Mr. Brasco. And longer lasting?

Dr. Jaffe. Longer lasting than methadone.

Mr. Brasco. What is the dosage?

Dr. Jaffe. Three times a week instead of seven times a week.

Chairman Pepper. Dr. Jaffe, you see from the questioning by this committee how enormously interested we are in your vast knowledge in this field. We are very grateful for you coming today and giving us your testimony. I am sure our committee would like to have the privilege of continuing to keep in contact with you when we come to the formulation of our recommendations as to what more the Federal Government can do to combat heroin addiction.

(The curriculum vitae of Dr. Jaffe follows:)

[Exhibit No. 12]

CURRICULUM VITAE OF DR. JEROME HERBERT JAFFE, DIRECTOR, ILLINOIS DRUG ABUSE PROGRAM

Formal education: Temple University; A.B., psychology, 1954; M.A., experimental psychology, 1956; Temple University School of Medicine; M.D., 1958.

Awards and honors: Temple University, College of Liberal Arts; magna cum laude; distinction in psychology; alumni prize: highest academic average; Psi Chi Award (scholarship and achievement in psychology); Psi Chi Honorary Society.

Temple University School of Medicine: Summer Research Fellowship in Pharmacology, 1957; Babcock Honorary Surgical Society; Alpha Omega Alpha: Merck Award: outstanding achievement in medicine during senior year; Mosby Scholarship Award: highest 4-year average in medicine.

Fellowships: USPHS Post Doctoral Fellowship in Pharmacology, 1961–1964. USPHS Research Career Development Award, 1964 to 1966, 1967–70.

Major interests: Psychopharmacology—use and abuse of psychoactive drugs—biological and sociological aspects.

Experience and training: Rotating internship—U.S. Public Health Service Hospital, Staten Island, N.Y., 1958–59. Residency in psychiatry—U.S. Public Health Service Hospital, Lexington, Ky., 1959–60. Psychiatric staff—U.S. Public Health Service Hospital, Lexington, Ky., 1960–61. Post doctoral fellow, interdisciplinary program—Albert Einstein College of Medicine, 1961–62. Post doctoral fellow and resident in psychiatry: Albert Einstein College of Medicine and Bronx Municipal Hospital Center, 1962–64. Assistant professor, Department of Pharmacology and Instructor, Department of Psychiatry, Albert Einstein College of Medicine, 1964–66. Assistant professor, Department of Psychiatry, University of Chicago, 1966–69.

Present positions: associate professor, Department of Psychiatry, University of Chicago, 1969 to present. Director, drug abuse program, Department of Mental Health, State of Illinois, 1967 to present.

Memberships in organizations: Alpha Omega Alpha, Sigma Xi, American Medical Association, American Psychiatric Association, American Society of Pharmacology and Experimental Therapeutics, American College of Neuro-Psychopharmacology, New York Academy of Science, American Association for the Advancement of Science, Illinois Medical Society, Chicago Medical Association, Illinois Psychiatric Society, and World Psychiatric Association.

CONSULTANTSHIPS, ADVISORY PANELS AND EDITORSHIPS

Member, Editorial Board, International Journal of the Addictions, 1966–.

Member, Review Committee, Center for Studies of Narcotics and Dangerous Drugs, NIMH, 1966–.

Visiting Assistant Professor of Pharmacology and Psychiatry, Albert Einstein College of Medicine, 1966–.

Visiting Lecturer, University of Texas, Medical Branch, 1966–.

Consultant, Illinois Narcotic Advisory Council, 1966–68.

Consultant, New York State Narcotic Addiction Control Commission, 1967–.

Member, Committee on Narcotics and Dangerous Drugs, Illinois State Medical Society, 1968–.

Member, Technical Advisory Board, National Coordinating Council on Drug Abuse Education and Information, 1969–.

Secretary, Section on Drug Dependence, World Psychiatric Association, 1969–.

Member, Advisory Board, Psychopharmacologia.

Member, Committee of the Division of Clinical Pharmacology, American Society for Pharmacology and Experimental Therapeutics, 1970–.

Member, Advisory Committee, Drug Abuse Training Center, California State College, Hayward, California, 1970.

Consultant, Bureau of Drugs Advisory Panel Systems, Department of Health, Education and Welfare, 1970–.

Special Consultant (Technical Adviser), Expert Committee on Drug Dependence. World Health Organization, Geneva, Switzerland, 1970–.

Member, American Psychiatric Association Task Force on Alcoholism, 1970–.

Consultant, Joint Information Service, American Psychiatric Association and the National Association for Mental Health (Project on Current Methods for the Treatment of Addiction), 1970–.

In addition to these on going advisory and consulting activities, Dr. Jaffe has been, over the past three years, an invited participant in more than fifty national and international conferences and symposia. He has also served as special consultant to a number of State and Local Governments interested in developing drug abuse treatment or educational programs and has been the keynote speaker at three Governor's Conferences. Dr. Jaffe has also served as a consultant to a number of temporary State and Federal advisory panels, as well as school systems, not-for-profit corporations, and private industry.

PUBLICATIONS OF JEROME HERBERT JAFFE, M.D.

The electrical activity of neuronally isolated cortex during barbiturate withdrawal. *The Pharmacologist*, 5:250, 1963 (Abs.) (with S. K. Sharpless).

The rapid development of physical dependence on barbiturates and its relation to denervation supersensitivity. *The Pharmacologist* 5:249, 1963 (Abs.) (with S. K. Sharpless).

Drug addiction and drug abuse. In, "The Pharmacological Basis of Therapeutics," 3rd edition, Goodman, L. and Gilman, A. (eds.), The MacMillan Co., New York, 1965.

Narcotic analgestics. In "The Pharmacological Basis of Therapeutics," 3rd edition, Goodman, L. and Gilman, A. (eds.), The MacMillan Co., New York, 1965.

The rapid development of physical dependence on barbiturates. (with S. K. Sharpless) *J. Pharmacol. and Exper. Ther.*, 150:140–145, 1965.

Changes in CNS sensitivity to cholinergic (muscarinic) agonists following withdrawal of chronically administered scopolamine. *The Pharmacologist* 8:199, 1966 (Abs.) (with M. J. Friedman).

The electrical excitability of isolated cortex during barbiturate withdrawal. (with S. K. Sharpless) *J. Pharmacol. and Exper. Ther.* 151:321–329, 1966.

Research on newer methods of treatment of drug dependent individuals in the U.S.A. Proceedings of the Fifth International Congress of the Collegium International Neuropsychopharmacologicum, Washington, D.C., *Excerpta Medica International Congress Series*, 129:271–276, 1966.

Cyclazocine, a long acting narcotic antagonist: its voluntary acceptance as a treatment modality by ambulatory narcotics users. (with L. Brill) *Internat. J. Addictions*, 1:99–123, 1966.

The use of ion-exchange resin impregnated paper in the detection of opiate alkaloids, amphetamines, phenothiazines and barbiturates is urine. (with Dahlia Kirkpatrick) *Psychopharm. Bull.*, *3*:, No. 4, 49–52, 1966.

The relevancy of some newer American treatment approaches for England, *Brit. J. Addict.*, 62:375–386, 1967 (with L. Brill).

Cyclazocine in the treatment of narcotics addiction. In, "Current Psychiatric Therapies," Masserman, J. (ed.), Grune and Stratton, New York, 1967.

Pharmalogical denervation supersensitivity in the CNS: A theory of physical dependence. (with S. K. Sharpless) In, "The Addictive States", Wikler, A. (ed.), The Williams and Wilkins Co., Baltimore, 1968.

Narcotics in the treatment of pain, *Med. Clin. North Am.*, 52:33–45, 1968.

Drug addiction: New approaches to an old problem. *Postgrad. Med.*, 45:73–81, 1968 (with J. Skom and J. Hastings).

Opiate dependence and the use of narcotics for the relief of pain. In, "Modern Treatment", Wang, R. (ed.), 5:1121–1135, 1968.

Psychopharmacology and opiate dependence. In, "Psychopharmacology: A review of Progress, 1957–1967," Efron, D. H., Cole, J. O., Levine, J., Wittenborn, J. R. (eds.), Proceedings of the Sixth Annual Meeting of the American College of Neurophyschopharmacology, San Juan, Puerto Rico, December, 1967.

Cannabis (marihuana). In "Encyclopedia Americana," Grolier, N.Y., 1969.

Drug addiction and drug abuse. In, "Encyclopedia Americana," Grolier, N.Y., 1969.

A review of the approaches to the problem of compulsive narcotics use. In, "Drugs and Youth", Wittenborn, J. R.; Brill, H.; Smith, J. P.; and Wittenborn, S. (eds.), Charles C. Thomas, Springfield, 1969.

A central hypothermic response to pilocarpine in the mouse. *J. Pharmacol, exp. Ther.*, 167:34–44, 1969 (with M. J. Friedman (1)).

Central nervous system supersensitivity to pilocarpine after withdrawal of chronically administered scopolamine. *J. Pharmacol, exp. ther.*, 167:45–55, 1969 (with M. J. Friedman (1) and S. K. Sharpless).

Pharmacological approaches to the treatment of compulsive opiate use: Their rationale and current status. In, "Drugs and the Brain," Black, P. (ed), Baltimore, 1969.

Experience with the use of methadone in a multi-modality program for the treatment of narcotics users. *Internat. J. Addictions, 4* (3), 481–490, 1969 (with M. Zaks and E. Washington).

Problems in Drug Abuse Education: Two Hypotheses. In, "Communication and Drug Abuse: (with D. Deitch)." Proceedings of the Second Rutgers Symposium on Drug Abuse, Rutgers University, New Brunswick, New Jersey, 1969.

Tetrahydrocannabinol: neurochemical and behavioral effects in the mouse. *Science, 163,* 1464–1467, New York, 1969. (with Holtzman, D. (1) Lovell, R. A., and Freedman, D. X.).

The treatment of drug abusers. In, "Principles of Psychipharmacology", Clark, W., and del Guidice, J. (eds.), Academic Press, New York, 1970.

Whatever Turns You Off. *Psychology Today,* 3, (12), 42–44, 1970.

A comparison of dl-alpha-acetylmethadol and methadone in the treatment of chronic heroin users: a pilot study. *JAMA*, 211 (11), 1834–1836, 1970 (with C. R. Schuster, B. Smith, and P. Blachly).

The implementation and evaluation of new treatments for compulsive drug users. In, "Advances in Mental Science II—Drug Dependence" Harris, R. T.; McIsaac, W. M.; and Schuster, Jr., C. R. (eds.), University of Texas Press, Austin, 1970.

Narcotic Analgesics. In, "The Pharmacological Basis of Therapeutics", 4th Edition, Chapter 15, Goodman, L. and Gilman, A. (eds.), The MacMillan Company, New York, 1970.

Drug Addiction and Drug Abuse. In, "The Pharmacological Basis of Therapeutics", 4th Edition, Chapter 16, Goodman, L., and Gilman, A. (eds.), The MacMillan Company, New York, 1970.

Further experience with the use of methadone. *International Journal of the Addictions*, September 1970.

Development of a successful treatment program for narcotics addicts in Illinois. Chapter 3, In, "Proceedings of the Second Western Institute on Problems of Drug Dependence", Blachly, P. (ed.).

Drug maintenance and antagonists: limits and possibilities. Proceedings of the November 24, 1969 Conference of the New York State Narcotic Addiction Control Commission.

An identification of techniques for the large scale detection of Narcotics, barbiturates, and central nervous system stimulants in a urine monitoring program. In *Abstracts of the Academy of Pharmaceutical Sciences*, (117) with K. K. Kaistha.

An overview of the conference, Proceedings of a Conference on Methodology on the Prediction of Drug Abuse Potential, Washington, D.C., September 8–10, 1969. U.S. Government Printing Office.

In press

The heroin copping area: a location for epidemiological study and intervention activity. *Archives of General Psychiatry*, (with Pat Hughes).

Developing in-patient services for community based treatment of narcotic addiction, *Archives of General Psychiatry*, (with Hughes, P., Chappel, J., Senay, E.).

Methadone and 1-Methadyl Acetate in the management of narcotics addicts. *JAMA*, (with E. C. Senay).

Effects of variation of methadone dose on the outcome of treatment of heroin users, Proceedings of the Annual Scientific meeting of the Committee on the Problems of Drug Dependence, February 16, 1971, (with S. DiMenza).

Experience with cyclazocine in a multi-modality treatment program for narcotics addicts. *International Journal of the Addictions*, (with J. N. Chappel, E. C. Senay).

Submitted or accepted for publication

Role of hospitalization in the treatment of drug addiction, (with J. N. Chappel).

A double-blind controlled study of cyclazocine in the treatment of heroin users, (with J. N. Chappel).

Extraction and identification techniques for drugs of abuse in a urine screening program. Presented to the Annual Scientific Meeting of the Committee on Problems of Drug Dependence, Toronto, February 16, 1971, (with K. K. Kaistha).

In preparation

Successful withdrawal from methadone: a 1-year follow-up.

Minimal methadone support for narcotics addicts awaiting entry into a comprehensive addiction rehabilitation program.

(A brief recess was taken.)

Chairman PEPPER. The committee will come to order, please.

Our next witness is Dr. Harvey Gollance, assistant director, Beth Israel Medical Center in New York City, with specific responsibility for the center's narcotic programs.

Before assuming his present position, Dr. Gollance was deputy commissioner for operations of the New York City Department of Hospitals, in which post he was in charge of operations at 19 municipal hospitals.

He has also served as supervising medical superintendent of Kings County Hospital Center.

Dr. Gollance is a fellow of the American College of Hospital Administrators and the American Public Health Association.

Dr. Gollance has had extensive experience in narcotics treatment programs, and is a member of the narcotics register advisory committee of the New York City Department of Health and the methadone evaluation committee of the Columbia University School of Public Health and Administrative Medicine.

Dr. Gollance, we are grateful for your appearance here today.

Mr. Perito, will you inquire?

Mr. PERITO. Dr. Gollance, I understand you have a statement which you are going to offer for the record and briefly summarize.

STATEMENT OF DR. HARVEY GOLLANCE, ASSOCIATE DIRECTOR, BETH ISRAEL MEDICAL CENTER, NEW YORK, N.Y.

Dr. GOLLANCE. I would like to make a brief statement.

I know you have heard a lot about methadone. We run the largest methadone program in the world. We are pioneers in this. The Beth Israel Medical Center is the largest voluntary hospital for the treatment of narcotics addiction in the world. We have 350 beds for narcotic addiction treatment. We admit over 9,000 patients to our detoxification service, and over 3,200 patients are under active treatment in our methadone maintenance program.

We sponsor this program in 12 other hospitals in New York City, some of the most outstanding hospitals in the world.

I would like to start with a brief statement of how the methadone treatment program came into being, because I think this is important.

We have had very serious heroin addiction in New York City for over 20 years. It struck in the low-income areas of the city, Harlem, South Bronx, Bedford-Stuyvesant, and it was different from any addiction problem we had had before. Formerly addiction was something among doctors, nurses, people of some means.

In the early 1950's a demand arose that the city do something about it because they had practically no facilities for the treatment of drug addiction.

In response to this demand, the city did several things. It opened a hospital for drug users called Riverside Hospital and in its early years an earnest attempt was made with psychologists, psychiatrists, social workers, et cetera. The board of education opened a school and supplied an interested faculty.

Riverside Hospital was opened in 1953.

In 1958, the health commissioner of the State of New York wanted to see what the State was getting for its money, and he had the Columbia University School of Public Health do a survey of the patients who had been in Riverside Hospital, and they took a certain time period and then tracked down the cases treated in that period, 1955.

What this study found was an unusually high death rate; but of those who survived, none were off heroin. It was obvious Riverside Hospital was a failure as far as getting anybody free of heroin. It did give some social first aid, a chance to reduce dope and stay away from the police. It is obvious there was no single treatment allowed for hard-core heroin addiction.

In 1963, the health research council of New York City got Dr. Vincent Dole, later joined by Dr. Nyswander, to do research in the treatment of drug addiction. Dr. Dole went on the assumption that whatever the psychological or sociological reasons that a person became addicted, once he was thoroughly addicted there was a physiological change and unless he did something about this he would not be able to rehabilitate the patient, the hard-core heroin addict.

Dr. Dole's goal was rehabilitation. By that he meant the addict could function in our society as well as he was capable.

Dr. Dole tried several things. He tried to see if he could stabilize a patient on morphine, some other narcotics. It didn't work. Then he used methadone in a new way. It is a synthetic narcotic that was used in World War II by the Germans, when their supply of opium was cut off.

After the war methadone was used mostly for the detoxification of patients—to get them drug free in a humane way instead of suffering through "cold turkey." In a week you can get any heroin addict off heroin. The point is the addict won't stay off heroin. Dr. Dole wanted to see what would happen if instead of reducing the dose of methadone as in detoxification, he gradually increased the dose. He found two things: When a certain level was reached the addict lost his drug hunger. He no longer had any craving for heroin, and if you went to a still higher dose it blocked the effect of heroin.

Dr. Dole got pure heroin and eventually injected large quantities of heroin into patients on blocking doses of methadone. Nothing happened. This is called the blocking effect.

When we speak of the methadone maintenance treatment program we mean the Dole-Nyswander technique of giving blocking doses of methadone—not just giving methadone in any haphazard sort of way.

Methadone has properties that make it very useful for this work. It is fully effective by mouth, it is long acting; once you get a patient stabilized, a single dose by mouth will last him 24–36 hours. It is a safe drug.

We haven't had any serious harmful effects either medically, surgically, or obstetrically in 7 years. The body develops great tolerance for methadone in a relatively short time. It no longer acts as a narcotic. By that I mean it does not make the patient high and it doesn't make him sleepy. It is, however, addictive. If taken away from the patient he would have withdrawal symptoms.

Dr. Dole did this work with six cases at Rockefeller Institute and then came to Dr. Ray Trussell, who was then commissioner of hospitals in New York City, and asked for facilities to expand his work.

Through Dr. Trussell's efforts, Dr. Dole got the beds in what is now the Beth Israel Medical Unit for Drug Addiction. We inaugurated this program in 1965.

When Dr. Trussell set this program up, he insisted that a separate contract be given to the Columbia University School of Public Health to do an independent evaluation of what happened to every patient in the methadone program. This is important. We now have records of every single patient who has ever come into our program, and these results have been independently evaluated by the Columbia University School of Public Health.

If we are going to get anywhere in treating drug addiction we must know what works and what doesn't work. I think this independent evaluation is an important part of this program.

Originally the patient was taken into the hospital for 6 weeks. After he was stabilized, he was sent to a clinic with a number of supporting services: counselors, research assistants, social workers. The goal is rehabilitation, not just to satisfy the drug hunger.

Many of our patients started very young. You now have help for them with all their problems, help them with welfare, with the courts, with their wives, get a job, all of these things. You must help to get the patient into the square society.

We do this. We believe that a methadone maintenance program should be done in a structured program. You must know what happens to your patient, and you work intimately with him.

As a matter of fact, we don't let an individual clinic exceed 150 patients. We want the staff to know the patient well and what is happening to him. At the present time we have almost 40 clinics scattered throughout the New York City area.

When we reach a census of 150, we open a new clinic. We look at the addict as an individual with a chronic illness. He is a medical patient. We base our program on a hospital. Most all our clinics are out in the community. They are considered an extension of the hospital. We think this philosophy of medical care is important.

Addicts have other problems besides their addiction. They have medical problems. The medical profession has shunned treatment of drug addiction for a number of generations now. In the past it was too dangerous for a doctor to deal with drug addicts. He risked prosecution and possible jail.

We now have a medically based program with a hospital to take care of patient addicts. We have seen some very interesting byproducts of this other than the direct treatment of addiction. We find out that when we set up a clinic associated with a hospital, the medical staffs become interested in treatment of drug addiction. If we are going to get anywhere in this field we need to bring the best brains we have into solving this difficult problem. Methadone maintenance has set up a climate favorable for this.

Methadone is not the final answer. It happens to be the best answer we have at this time for treatment of the hard-core heroin addict.

Dr. Dole's original criteria were that the patients had to be 21 years of age and under 40, because there is a theory around that drug addiction burns itself out as the patient gets older.

They had to have a history of mainlining heroin. They were hardcore addicts. They all had criminal records and had tried other programs without success, to further confirm their serious addiction.

The original program, because it was new, excluded certain conditions: alcoholism, pregnancy, mixed drug use. However, as we have gained much experience we have broadened the criteria for admission. We admit now a patient over the age of 18, there is no longer an upper age limit. We have one man 87, one 82, and a number collecting social security.

We now require 2 years of heroin addiction. We are very careful to see that the applicant is a confirmed addict.

This is a voluntary program. In our experience it takes about 2 years before a heroin addict is first willing to do something about his addiction. At the beginning the drug addict rather enjoys the high he gets. He is a very busy individual supporting his habit by stealing. He rather enjoys that culture at the beginning. We feel it takes 2 years before he is willing to do something constructive by entering this program.

For this group of cases, this program has proved very successful. I believe you heard Dr. Gearing. She does our evaluation. She is a very competent individual.

I would like to review what our experience has been. Basically we have an 80-percent retention rate in the program. We have a 20-percent dropout rate. Very few of the patients drop out of their own volition. They are usually dropped out by us for administrative reasons. These turn out to be severe alcoholics, a few get arrested early in the program or use other drugs.

The work records are very interesting. I don't have the most recent figures. I don't know what effect the present recession will have. Up to about a year or two ago our patients were about 25 percent legitimately employed when they started. At the end of 6 months, about 50 percent are working and after 2 years 80 percent. For those in the program 3 years or longer, 92 percent were either working, keeping house, or going to school, and only 6 percent were left on welfare.

The arrest records in our program have been phenomenal. Dr. Gearing did a study of arrest patterns. She took a group before they came into the methadone program and studied their arrest records. It showed 115 arrests per 100 patients in the course of a year, 48 convictions per 100 patients in the course of a year. She then followed the course of these patients for 4 years after they started on methadone.

The 115 arrests per 100 per year dropped to 4.5. The 48 convictions dropped to 1 per 100 per year. The arrests practically disappear and the longer in the program, the fewer the arrests.

Here was a program that took hard-core heroin addicts whose treatment had been very unsuccessful before. I, myself, when I was deputy commissioner of hospitals, tried setting up programs, pleading with doctors to set up programs. I was not successful. The few programs in existence were very unsuccessful and most physicians I knew were very discouraged.

Now, we take a large number of severe heroin addicts and you have them working, you keep them out of jail, you put their families together.

That doesn't mean we have all angels in our programs. We have some who have problems. Some will do things they shouldn't, but on the whole this has been a very successful program.

With that introduction, I would like to answer some questions.

Chairman Pepper. That is a very good summary.

Dr. Gollance. Could I answer the previous question about dispensing it?

I would be against dispensing it just in pills. We have changed over to what we call a disket. It is a large tablet that leaves a sludge, and the patients can't inject it. We use diskets to prevent careless handling so that children can't get them.

For this reason we have a tendency to use diskets dispensed in vials with locking caps where they can be kept in the medicine chest away from children.

Mr. Brasco. That is the question I asked, Doctor.

Do you agree with Dr. Jaffe, then, of the impracticality in New York of having a patient come once a day for his dosage rather than——

Dr. Gollance. Yes; when you are on a very large scale program.

Mr. Brasco. So you agree?

Dr. Gollance. Yes; and for the reason Dr. Jaffe said, we are trying to rehabilitate patients.

Mr. Brasco. The disket is something that cannot be injected; is that correct?

Dr. Gollance. That is correct.

Mr. Brasco. I was concerned about working with substances that would be practical for carrying and used just as long as they could not be used intravenously.

Dr. Gollance. That is right.

Mr. Brasco. But that disket is not something capable of being used intravenously?

Dr. Gollance. That is correct. I would like to answer Congressman Rangel on the ethnic distribution of patients in New York. We have a narcotic registry run by the health department and the ethnic distribution of their list is 50 percent black, 25 percent white, 25 percent Puerto Rican.

The patients in our programs approximate that ethnic distribution.

I would also like to say that this is no longer a situation of the low-income group. Last week the daughter of a prominent professor and the son-in-law of a prominent head of surgery in one of the leading hospitals in the city, came into our program. In answer to your question, two marines I know personally came back addicted. The reason the marines snort heroin and don't inject it is so they won't leave trackmarks. But when they come back here they will start injecting heroin. This one Marine had gotten $6,000 from an automobile accident and wanted to return to the Orient for drugs. I got him into the methadone program and he is doing very well.

Chairman PEPPER. Mr. Perito, please proceed.

Mr. PERITO. Thank you, Mr. Chairman.

First, Doctor, do you believe that private physicians should be permitted to maintain addicts on a maintenance program?

Dr. GOLLANCE. At this time I would say no. Our feeling is that this should be done in a structured program. We have given a lot of thought to how to use private practitioners. For example, if we had a well-stabilized patient he might be referred to a private practitioner. If this were done, it would furnish a means of having the patient checked, because there is possibility of abuse.

There is the program in New York City that disburses——

Mr. PERITO. You mean dispensing of methadone by a private physician; is that what you are talking about?

Dr. GOLLANCE. That is right.

Mr. PERITO. What steps can be taken in order to avoid problems of this nature?

Dr. GOLLANCE. Well, the thing is if you can set up enough programs so the patient can come in and get it from established programs very cheaply and receive good care. We get many patients from this private doctor when we can reach him on our list.

Unfortunately, we have quite a long waiting list. The last time I was before this committee, we were asked how can we expand the program. I might say, since that time last year, we have taken as many patients in 1 year as were taken in all of the previous 5 years. We have the mechanism for expanding this widely if we get the necessary funds

Mr. PERITO. Do you believe addiction is a metabolic situation?

Dr. GOLLANCE. I think you have to make that assumption. At least it has worked here. The psychological and sociological approaches have not worked for this type of patient. We have tried all these things without methadone and they haven't worked. Under methadone you can use a number of successful approaches, but without it we have been very unsuccessful.

Mr. PERITO. What steps have you taken in your program to control diversion?

Dr. GOLLANCE. First of all, we limit the size of the clinic so we know the patient. We constantly watch the patient, besides the urine checks, to know that he is not using other drugs, and if we have any suspicion at all we will put him on a daily regime.

One of the interesting things is the patient develops a loyalty to the program. I know addicts are not supposed to squeal, but they will come to us and tell us, look out for this fellow, and we will. They will give us information about our patients. We have a patient-physician relationship. We don't take a punitive approach. We don't look at the addict as a dope fiend or outcast. We encourage him to tell us when he is abusing. In the first few weeks he will.

If he is using other drugs we will ask him to tell us so we can work with him.

Mr. PERITO. Finally, Doctor, to the best of your knowledge, is there a black market for and in methadone in New York City?

Dr. GOLLANCE. I am sorry to say there is. We have asked the police repeatedly, ever since we have had the program, do they think our program is a problem for them.

They have told us our program is not. But we do know it is getting on the streets from some very unstructured, unsupervised programs.

I appeared before a group of probation officers and a police officer, and he said, "I know it gets on the street." I said, "I would like to see it. I don't think it is any of ours." He pulled out a vial and there was a label of this unsupervised program in New York City.

Chairman PEPPER. Mr. Blommer.

Mr. BLOMMER. I have no questions, Mr. Chairman.

Chairman PEPPER. Mr. Waldie.

Mr. WALDIE. No questions.

Chairman PEPPER. Mr. Wiggins.

Mr. WIGGINS. Would you describe the workings of the central registry for us?

Dr. GOLLANCE. The health department gets all the information. Physicians are supposed to report to them and it is strictly confidential. I would say most of their records are gotten through arrest records. When arrested, that is reported to the central registry. Also, physicians and others with knowledge are required to report this to the health department.

Incidentally, Dr. Dole has been working on detoxifying prisoners in the New York City prison and at nights I have personally observed that at least two-thirds of the prisoners are addicts under the influence of heroin.

Mr. WIGGINS. Can you describe the methadone registry for the record?

Dr. GOLLANCE. That is a special methadone registry under the direction of Rockefeller University. This registry for the methadone patients is available to Dr. Gearing and Dr. Dole at Rockefeller. Any patient we treat, or any hospital connected with us must report every patient into this central computer. We finance and train hospitals.

One thing that we will not yield on in any way is that they must report in their results in exactly the same manner as we do. There is standardized reporting in our program.

However, there are programs that do not report to this central registry.

Mr. WIGGINS. That is all.

Chairman PEPPER. Mr. Brasco.

Mr. BRASCO. Yes. Could you tell us, Doctor, how long is the waiting list for the program?

Dr. GOLLANCE. It varies. It used to be very long. It has gotten much shorter. We have set up a number of programs, including what we call rapid induction. We are working now on what we call a holding program. That will cut down waiting time. It varies from weeks to months, depending on the area in which the patient lives.

Mr. BRASCO. That is another thing. I know it is localized. Coming from New York, I had an opportunity to try to place a young man that came into my office, and I was sort of distressed to find out that the program he was talking about had longer than a 5-month waiting period and over and above and beyond that there was this geographic thing where they said we don't service that particular area.

Apparently what had happened is one program that had some openings said we don't service that area and the other program said we don't service that program.

I thought it was all your program.

Dr. GOLLANCE. No; there are a number of programs in New York City. We are in four boroughs. We have others besides ours. The city has opened up several, the Bronx has a separate program.

In our own network we have 14 hospitals, 30 clinics, and 3,200 patients. If we get the funds, we will go to 6,000 patients. We have the means now to expand. We have trained staff to act as a nucleus for expansion. It is not only a matter of money. It is to get space, to train staffs, to get people willing to do this work. I think we are over most of that hurdle.

Mr. BRASCO. You say you have the means. You say you have 3,200 patients. What does that mean? How many patients can you convert if you have the money and you have the staff?

Dr. GOLLANCE. They have been making funds available now and more and more are getting into——

Mr. BRASCO. How many additional patients would that be?

Dr. GOLLANCE. If we get what we ask for from the State—for example, we are financed entirely by the New York State Narcotics Addiction Control Commission—if they give us the funds we will jump from 3,200 to 6,000 this year. That is just our program.

Mr. BRASCO. One last question.

The diversion of methadone, when it is diverted in the streets, it is used, I take it, as a substitute for heroin, mainly because it is cheaper; is that the reason?

Dr. GOLLANCE. From what I gather from all the addicts I have spoken to, they do not take methadone as a drug of choice. After he has become addicted, after a while, the addict is not looking for the highs. He is looking to be comfortable. He doesn't want to be sick. Methadone will prevent him from getting sick.

Mr. BRASCO. So that what you are saying, then, is that the addict that is using this in the street, when methadone is diverted, is using it in the same way that he would use it in your program, other than the fact that it is——

Dr. GOLLANCE. He is trying to do it that way by and large. There are a number of psychotic individuals around. For example, our experience has been that anybody who takes heroin after 8 weeks in our program, usually turns out to have a serious psychiatric problem. He doesn't get any high from it. He is a needle addict.

Mr. BRASCO. I have no further questions.

Chairman PEPPER. Mr. Steiger.

Mr. STEIGER. No questions.

Chairman PEPPER. Mr. Mann.

Mr. MANN. Qualified personnel is a problem in the expanding medical field. How about your problems?

Dr. GOLLANCE. Well, there has been a great improvement in our program. For example, we are getting young doctors now who are interested, and I have applications from doctors to join the program. I don't have spots for them right now. The nurses enjoy doing this work. We are one of the few programs that doesn't have difficulty recruiting nurses.

The counselors are flooded with requests from bright young people now because of the job situation and we can get a good calibre of counseling. We are not having problems getting personnel that we had, maybe, 2 years ago, 3 years ago.

Our problem now is boiling down to money.

Mr. MANN. To what extent do you use ex-addicts in your program?

Dr. GOLLANCE. We use ex-addicts. We call them research assistants. They are a very valuable part of the program. We have a very limited number. In our requirement we will not take an addict right from our program and hire him as a research assistant. He must get a job and show he can hold a job on the outside. When he does, we can hire him. They are very useful, they are useful as a model to the new patient in explaining the program to the new patient, useful in explaining the addict to the "square" staff that we hire. So they are very, very useful.

Mr. MANN. Thank you.

No further questions, Mr. Chairman.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Along that same line, what difficulties have you encountered in obtaining physical facilities for treatment of the addicts?

Dr. GOLLANCE. We have had many problems in that area, and we use any physical facilities we can get. We use stores, brick them up. We don't call them storefronts because our addicts have had bad experiences with storefronts. We use health buildings, office buildings. We even set up a program in a church and are looking at another church to get space. So we will use available space.

Now, there is a problem in getting space. We go into a community and try to see if the community is going to back this program. They are very much in favor of it but don't want it on their block.

So we have worked that out.

In the Harlem community, fortunately, we don't have that problem. We have been able to open up a great many clinics and we are expanding there.

But in certain other areas, it is a problem.

Mr. WINN. Do you use the residential system Dr. Jaffe referred to?

Mr. GOLLANCE. No; we haven't done that. Practically all our patients are treated on an ambulatory basis. We have a certain number of beds for those who have difficult problems and we will take them into the hospital for 6 weeks.

We also have a medical service and obstetrical service to take care of the patients.

I would also like to touch on that because this comes up. We think it is important for the pregnant addict to be stabilized on methadone. Our experience is that the pregnant woman stays on the street as long as she can. She is a prostitute, gets no prenatal care, takes a shot of heroin and tries to smuggle some heroin in with her when she enters the hospital for delivery. At least on methadone maintenance they get prenatal care, we can follow them carefully, and I might say that methadone has brought about a great change in climate. When I was deputy commissioner of hospitals, it was recognized that pregnancy in addicts was a problem.

We approached the chiefs of the obstetrical services and almost to a man they said this is not their problem. Now, our obstetricians see these cases. They are much interested in them and there is a much better climate for the pregnant addict than what existed 5 or 10 years ago.

Mr. WIGGINS. Incidentally, does the child manifest withdrawal symptoms?

Dr. GOLLANCE. We have watched them very carefully. We are going to follow those infants for a long time. But the alternative would be they would have heroin withdrawal symptoms.

Chairman PEPPER. Doctor, I have to go to the floor for a little while.

I will ask Mr. Waldie if he will be good enough to take the Chair.

I will ask you one question and make one comment.

How is your program financed?

Dr. GOLLANCE. Entirely by New York State Addiction Control Commission, and we are worried very much about future financing.

Chairman PEPPER. Secondly, on behalf of the committee I want to express our very deep appreciation for your coming here and giving us the benefit of your knowledge and experience.

Dr. GOLLANCE. Thank you. It is a privilege to be here.

Mr. WALDIE (presiding). Mr. Murphy.

Mr. MURPHY. Yes.

What experience do you know of that the Army has had with methadone?

Dr. GOLLANCE. I don't know the Army's experience. I know the veterans hospitals in our area have been very interested. I have spoken to two of them. One of them is setting up a program. I would think that this is a very serious problem. I am not an expert on the Army's situation.

I had one man tell me the main reason for reenlistment in a certain group was to stay in the Orient where they could get heroin.

Mr. MURPHY. That is all.

Mr. WALDIE. Mr. Rangel.

Mr. RANGEL. Do you know of any feasible way to dispense methadone in such a form that it cannot be reduced to another substance so that it can be used intravenously?

Dr. GOLLANCE. Well, if it is given dissolved in Tang, as we do, or in disket form it can't be injected.

Mr. RANGEL. But we discussed this earlier and determined that it was not practical to do this. Is there any other form, concrete form, that you can create a methadone treatment or dosage so that it would be impossible for the patient to later reduce it for injection?

Dr. GOLLANCE. Well, I don't think they can reduce either of these two forms we use. The type they inject are the pills usually gotten from physicians. They are the usual medical tablets and they are injectable. Perhaps do away with the injectable pills might be one way.

Mr. RANGEL. Are you saying that in your treatment program you don't give methadone in any solid form at all?

Dr. GOLLANCE. Only in this disket which is a special form, certain substances are put there so it leaves a sludge so it won't go through a needle.

Mr. Rangel. That is a solid form?

Dr. Gollance. It is a solid tablet. It is dissolved in water. It is like a large Alka-Seltzer and it fizzes up and it leaves a sludge and they drink it when dissolved.

Mr. Rangel. If all of methadone was required by law to be dispensed only in the form in which you dispense it, would that not eliminate the possibility of injections?

Dr. Gollance. Yes; and I might point out that methadone is a difficult drug to synthesize. There is only one manufacturer that I know of in this country, so it is not the type of drug that you can bootleg and make it surreptitiously.

Mr. Rangel. Thank you.

Mr. Waldie. Thank you.

Are there any other questions?

Doctor, we appreciate very much your appearance before the committee.

(The following material was received for the record from Dr. Gollance:)

[Exhibit No. 13(a)]

Methadone Maintenance Treatment Program

(Reprinted from Maryland State Medical Journal, November, 1970, Vol. 19, pages 74–77. © 1970 by the Medical and Chirurgical Faculty of the State of Maryland, Baltimore, Maryland. Printed in U.S.A.)

By Harvey Gollance, M.D., Associate Director, Beth Israel Medical Center, Administrator, Methadone Maintenance Treatment Program, New York, N.Y.

Drug addiction has reached epidemic proportions in New York City and in other sections of the United States as well. An effective treatment for severe heroin addicts known as the methadone maintenance treatment program has been developed at Rockefeller University and has continued in a greatly expanded program at the Beth Israel Medical Center in New York.

Facilities for the treatment of narcotic addiction were almost nonexistent in New York until the 1950's. It was then that the increase in the number of addicts in the low-income areas was recognized, as was the increase in the use of narcotics by the young. Concerned city authorities prompted the department of hospitals to establish facilities for adolescent drug users. As a result, a 140-bed hospital. Riverside Hospital, was opened in 1952. Psychiatrists and strong rehabilitative and supportive services were provided. In addition, beds were obtained in a proprietary hospital. Manhattan General Hospital, to detoxify narcotic patients. With one exception, the chiefs of service of the municipal general care hospitals resisted the treatment of drug addicts in their service. Few physicians were interested, and almost all refused to treat the addicts.

A study was done by Columbia University in the late 1950's of 248 patients discharged from Riverside Hospital. It showed that almost 100 percent of the patients still alive became readdicted shortly after discharge. Ray E. Trussell, M.D., director of the School of Public Health and Administrative Medicine of Columbia University, during a sabbatical leave, had been appointed commissioner of hospitals of New York City in 1961. Dr. Trussell, as a result of the Riverside Hospital study, and because of additional serious administrative problems, decided that Riverside Hospital should be closed, and that we should seek new approaches to treat drug addicts. Riverside Hospital was closed in 1963. Although it had given its patients some social assistance, it failed both in preventing readdiction and in rehabilitating its patients. It seemed clear that the answer to the treatment of narcotic addiction lay in new directions to be determined by future research.

RESEARCH ENCOURAGED

The Health Research Council of New York City was interested in encouraging research in the area of drug addiction, and in 1963 they initiated a grant to two Rockefeller Institute physicians: Vincent Dole, M.D., a specialist in metabolic research; and Marie E. Nyswander, M.D., a psychiatrist with long experience in drug addiction.

Dr. Dole and Dr. Nyswander attempted to find a means of treating a patient which would enable the patient to function productively in society. The researchers considered drug addiction as a psychological disorder and thought it reasonable to ask whether some medication might control the drug hunger. At first they attempted to maintain patients with morphine. While this did away with much of the patient's antisocial behavior, it did not make him productive. Next, they used methadone in an unusual way, giving their patients gradually increasing doses until the tolerance level was reached, usually between 80 to 120 milligrams daily. When patients reached this maintenance level, usually after 6 weeks of treatment, the physicians found that several things happened:

(1) The patient showed no harmful effects from methadone. He was neither sleepy nor high. Medical examination and all types of medical, physiological, and psychological testing showed no harmful effects from methadone.

(2) The patient lost his drug hunger.

(3) The effect of heroin was blocked. Even when given an injection of heroin, the patient experienced no effects from it.

(4) The dosage of methadone, once established, remained stable. It did not have to be increased, and was long acting (24 to 36 hours).

GROWTH OF THE METHADONE PROBLEM

After intensive study and experience with six patients, Dr. Dole went to Dr. Trussell, showed him the histories of his six patients, and asked for facilities to expand his work. In 1965, through Commissioner Trussell's efforts, beds were obtained at the Manhattan General Hospital. This hospital of 386 beds later was acquired and became an integral part of the Beth Israel Medical Center. This was done through the help and cooperation of the president of the Board of Trustees of the Beth Israel Medical Center, Mr. Charles H. Silver. In 1966, the center was renamed the Bernstein Institute of the Beth Israel Medical Center. It is the largest center for drug addiction under voluntary auspices. Methadone maintenance is one of several narcotic programs of the Bernstein Institute.

In 5 years, the Methadone program has expanded to the point where over 1,300 patients are currently being treated in four hospitals and 15 clinics under the sponsorship of the Beth Israel Medical Center. Several additional voluntary and municipal hospitals and clinics are now almost ready to join the Beth Israel Methadone Maintenance Treatment Program. The inpatient phases of the work are done either at Beth Israel or at Harlem Hospital. Clinics have been established at Beth Israel Medical Center, Harlem, St. Luke's, and Cumberland Hospitals. In addition, a number of hospitals in New York City have established their own methadone programs based on the work done previously at the Beth Israel Medical Center.

This program considers the addict a patient with a chronic disease. The individual whom it treats is the hard-core addict who suffers from euphoria and drug hunger, is unable to function socially or economically, and must take drugs to relieve his physical misery.

Naturally, we realize that it would be best if the cause could be removed and the patient made drug-free. But all programs which have attempted this in a community setting have failed. This program deals with the symptoms. The Methadone blockade against opiates frees the addict from his drug hunger so that he becomes receptive to rehabilitation. It should be stressed that this program deals with the long-term, usually criminal addict, who has been unable to make it in any other way. Our goal is social rehabilitation for those who have been unable to achieve abstinence.

TREATMENT APPROACH

The Methadone program is not based on a psychiatric approach. While psychiatric consultation is needed for a number of patients, it is not the primary modality. Our experience has shown that the program is equally effective in a department of psychiatry, medicine, or community medicine. The important factor is competent direction by an interested physician. Our experience has also shown that there should be available good medical and obstetrical services by physicians who are familiar with methadone patients and who are available for back-up in program.

INTAKE OF PATIENTS

A central intake of patients for all the clinics and hospitals associated with this program has been established under the direction of a skilled staff. This staff has had experience working with addicts, and their backgrounds are essentially in social service. They screen the applicants for acceptability in the program. A research assistant (an addict in the program who has proven himself) is of great assistance in this procedure.

Originally, because this was an experimental program, very rigid qualifications for admission were established. These subsequent qualifications and their modifications are:

1. *Age.*—Originally, age was set at 21 to 39 years. The patient had to be able to sign a consent form but could not be over 39 because of the theory that drug addiction decreases with age. The age requirement has now been changed to 18 years with proper consent. No maximum age limit now exists. We even treat patients collecting Social Security, and those registered with medicare.
2. *Residence.*—New York City residency is required because of reimbursement aspects.
3. *Addiction.*—Only opiate addicts are accepted. Severe barbiturate and amphetamine users are rejected, as well as are those with multiple addiction (i.e., combination of opiates with barbiturates). However, the final decision for acceptance may be modified by the clinician in charge.
4. *Length of drug use.*—Originally, a minimum of 5 years of mainlining heroin was set. This has been gradually reduced and is now 2 years.
5. *Psychiatry.*—Any history of psychoses or severe mental disturbance is usually cause for rejection. This may be modified by the clinician.
6. *Addiction in family unit.*—If the patient's spouse is addicted, both must be eligible and admitted together. The same is true of any family members living in the same household.
7. *Alcoholism.*—Severe chronic alcoholics are rejected.
8. *Mental deficiency.*—Addicts are rejected if intelligence quotient is so low that they cannot handle the responsibilities of the program.
9. *Medical.*—Cirrhosis of the liver, diabetes, epilepsy, and terminal conditions were originally reasons for rejection. We now have no medical exclusions.
10. *History of previous unsuccessful treatment.*—This has now been modified, and a determination is made according to the judgment of intake personnel.
11. *Acceptance of patients.*—Finally, the physician in charge must approve the selection of the patient.

PROCEDURE

When it has been determined that the patient meets the criteria and a vacancy for treatment occurs, he is admitted into a phase I program. Originally, this was a 6-week period of hospitalization on an open ward. This phase has been modified and now, in a high percentage of cases, it is done on a strictly ambulatory basis. The patient is given divided doses at first. As the dosage is increased, and there are no undesirable side effects, the dosage schedule is changed to a single daily dose. The methadone is dissolved in an orange juice substitute and taken orally.

After reaching maintenance level, the patient is next assigned to a phase II clinic. At first, the patient reports daily. He leaves a urine specimen which is tested for opiates (heroin and morphine), amphetamines, quinine, barbiturates, and methadone. He drinks his dose of methadone in front of the nurse, and periodically reports on his activities (for example, school, work), or problems. As the staff is convinced of the patient's progress, he is required to report less often—three times a week, twice a week, then once a week. However, when he does report, he drinks that day's dose of methadone in front of the nurse (to be sure that he is still taking it), leaves a urine specimen, and is given his daily supply of methadone for those days when he does not report to the clinic.

We try to limit the size of our phase II clinic to less than 100 patients. Each clinic has a part-time physician, a nurse, or nurses (depending on the hours of the clinic), a supervisor, counselors, a research assistant (ex-addict), and clerical personnel. Backup medical, psychiatric, pharmaceutical, social, legal, and other services are provided when needed.

It is during phase II that serious efforts are made in the rehabilitation of the patient. A wide spectrum of services is offered to the patient in the areas of medical care, counseling on problems of everyday life, social services in regard to family living and community resources, vocational rehabilitation, and legal defense advice. The older patients on the staff are especially helpful in this phase, and are constantly available to help with problems peculiar to addictive patients.

After a year, when the staff is convinced that the patient is doing well, at a job, at school, or at keeping house, and the patient seems to have no problem with alcohol or drugs, he is assigned to a phase III clinic. The treatment is essentially the same, but the frequency of visits is much shorter and there is little need for the counseling staff. These services, however, are available if needed.

EVALUATION

From the start, in 1964, this program has had independent evaluation of all the patients who have ever entered it. Originally, when the city financed this program, money was allocated to the Columbia School of Public Health to perform this evaluation. When financing of the methadone maintenance treatment program was assumed by the State narcotic addiction control commission in 1967, a separate contract was given by the State to the Columbia University School of Public Health and Administrative Medicine to continue this evaluation. A highlevel committee was appointed. The charge to this committee was to evaluate the results of this program in an objective manner, and to make recommendations based on this evaluation. Frances Rowe Gearing, M.D., was appointed the director of the evaluation unit.

In their report of March 31, 1968, the committee reached these conclusions: "The results of this program continue to be most encouraging in this group of heroin addicts, who were admitted to the program on the basis of precise criteria. For those patients selected and treated as described, this program can be considered a success. It does appear that those who remain in the program have, on the whole, become productive members of society, in contrast to their previous experience and have, to a large extent, become self-supporting and demonstrate less and less antisocial behavior. It should be emphasized that these are volunteers, who are older than the average street addict and may be more highly motivated. Consequently, generalizations of the results of this program in this population to the general addict population probably are not justified. There remains a number of related research questions which need further investigation."

A report as of March 31, 1969, showed there were 153 women and 861 men who had been under observation 3 months or longer.

"Among the women, 10 percent were employed on admission. After 12 months, 33 percent were employed. Fourteen percent were homemakers, and 3 percent were in school. After 18 months, 65 percent were employed, in school, or homemakers and, after 2 years, this percentage had increased to 73 percent.

"Among the men, the percent of those employed or in school increases from 26 percent on admission to 56 percent at 12 months, 70 percent at 24 months, and 83 percent at 3 years. The percent of men on welfare or supported by others decreases proportionately from 54 percent at 6 months to 44 percent at 12 months, 30 percent at 24 months, and 17 percent at 36 months.

"The arrest records of those who enter the methadone program and those who enter our detoxification program are similar. Patients who are accepted have to wait a long period. Acceptance into the program does not have a marked effect on their pattern of arrest in the 12 months prior to admission. Following admission, there is a marked decrease in arrests while the pattern of arrest among the contrast (detoxification) group is very similar to earlier patterns."

None of the patients who remained in the program have become readdicted to heroin. Problems with drug abuse (amphetamines and barbiturates) varied from 4 percent to 12 percent.

The methadone maintenance treatment program is an effective, economical way of treating hard-core heroin addicts who cannot be treated successfully with any existing programs. It can now be done on an entirely ambulatory basis for most patients. This makes the program feasible for those areas where inpatient beds are difficult to obtain. We feel it is very important that this program be a structured one so that it remains carefully controlled.

Methadone maintenance treatment for heroin addiction is a public health program. It should be accomplished under the direction of a public health department, a hospital, or an organized medical facility. Since rehabilitation and social productivity of the patient is the prime objective of this program, it is important that the means to do this must be an integral part of the program. It is not sufficient to prescribe methadone alone.

Under these circumstances, the addict is given a chance in a program which he is capable of handling, and which offers him a realistic path to living as a responsible member of his community and of society without the crutch of heroin.

Mr. Lichtman, whose statements follow, is a research assistant at the Beth Israel Medical Center. Before becoming an assistant there, he was a drug addict. In conjunction with Dr. Gollance's article on the methadone maintenance program, Mr. Lichtman tells how the program has helped him.

I am 29 years old. I started using heroin at the age of 15. I used it for a period of approximately 10 years. Approximately 4 of those years were served as a guest of the city, State, and Federal governments in any number of institutions.

After a period of 10 years, I found that a strange thing happened to me. I developed a certain motivation which I had not had during that time. I decided that I wanted something more than I had had for those 10 years. I came to the Beth Israel Medical Center in April 1966, at which time I applied for the methadone maintenance program. The reason that I had originally applied for that program is that I had unsuccessfully tried other methods of treatment when coming out of institutions in other programs. I found that the same drug craving which I had in going into a program would return upon my release from an institution.

I had heard many stories about methadone. I heard that while taking methadone you are still addicted, and you would not be able to function in the community. But I decided that since I had not been able to function in the other programs, that I would try methadone.

As I said, I went into the hospital, and stayed there for a period of 6 weeks, during which time the methadone level was increased.

After leaving the hospital, I returned to my family, who were skeptical. My father owns his own business in Manhattan. He is a furrier and does make a good living. During the 10 years I was using drugs, he did not allow me into his place of business. When I returned there from the methadone program, as I said, he was skeptical, but was willing to take a chance with me.

I lived at home for 4 months, at which time I met a young lady who was also willing to take a chance with me and who knew my background. After about 6 months, we were married.

I now have a lovely home in Riverdale, and a new car. I work for the program in helping other addicts attain that which I have attained.

I find there is no real "hang-up" in using methadone. I leave a urine specimen when I come into the clinic weekly and pick up six bottles of medication to take home with me, which I take at my leisure. Methadone is a long-acting drug. I take the drug at any time during the day, and sometimes forget to take it and then overlap hours. The drug lasts anywhere from 24 to 36 hours. I have never experienced any withdrawal symptoms.

As I say, there is no drug craving, and no outward appearance of euphoria. Methadone does not produce these symptoms as other opiate drugs do.

In the time I have been on the methadone program, I find that there are many people who are willing to take a chance on the addict population once they (the addicts) are stable on it, that is, the maintenance drug. In New York City alone we have many large organizations, such as the telephone company and large construction firms, who are willing to employ some of our people in the program.

It is difficult for me to tell you all of the things that have happened to me in the past. I have a new life today and it is something that I was never able to have before.

[Exhibit No. 13(b)]

BETH ISRAEL MEDICAL CENTER,
METHADONE MAINTENANCE TREATMENT PROGRAM,
New York, N.Y., May 7, 1971.

Mr. CHRIS NOLDE,
Associate Counsel, House Select Committee on Crime,
Washington, D.C.

DEAR MR. NOLDE: Following are my comments concerning the statements of Mr. Horan:

1. We agree that private physicians should be regulated in their use of methadone for maintenance; but we should be careful not to impede the development of

well-structured methadone maintenance programs because of the improper use of methadone by private physicians.

2. Methadone in injectable form (Dolophine) has been available in the legal and illicit markets for a long time. It is inaccurate and misleading to ascribe methadone overdoes in any community to the existence of methadone programs alone since Dolophine has been available for many years and is still available in the illicit market. Most structured programs do not use Dolophine in pill form.

3. Although methadone maintenance is not the treatment of choice for all addicts, it should be available for those for whom it is the treatment of choice.

(*a*) We have changed our admission criteria as follows:

(1) Minimum age requirement has been reduced from 20 to 18 years.

(2) Number of years of verified addiction has been reduced from 4 to 2 years.

We made these changes in order to make this treatment available to the younger patient who is already thoroughly addicted to heroin; in this way we can treat the younger patients who need the program without addicting persons to methadone who are not already clearly addicted to heroin.

(b) We find that most, if not all of our patients, have been treatment failures in other programs; but this is not an absolute prerequisite for admission.

4. We agree that every effort must be made to screen out any applicant who is not already addicted to heroin.

5. Therapeutic communities and residential treatment menters are modalities of choice for young and nonaddicted users of heroin. Communities containing a significant number of addicted persons should provide programs designed to meet their specific problem, including heroin addiction.

6. Part 5 of the statement reads in part: "We find many provable cases of injection directly into the vein of methadone mixed with juice or Tang." I have checked with our clinical staff to make sure that my impression is correct and it is their opinion that the following is correct: Methadone mixed with juice or Tang is noninjectable for several reasons which I think are too technical to go into here, but the fact is that the drug in this form is not injectable and any patient who succeeded in injecting it would become fatally ill.

I would emphasize that there is a large group of chronic heroin users for whom all existing treatment programs except methadone maintenance have been a failure.

The goal should be to set up structured, controlled programs and not to deny the seriously heroin addicted this proven program which is literally lifesaving, both for the patient and the community.

Sincerely yours,

HARVEY GOLLANCE, M.D.
Associate Director,
(In charge of narcotic treatment programs).

[Exhibit No. 13(c)]

FORTY-NINTH JUDICIAL DISTRICT,
COUNTIES OF DIMMIT, WEBB, ZAPATA,
Laredo, Tex., November 11, 1970.

VINCENT P. DOLE, M.D.,
Rockefeller University,
New York, N.Y.

DEAR SIR: This is to notify you that a complete check of our district court records reveal the following in connection with cases involving burglary and theft, theft, aggravated assault, forgery, under the influence, and other petty theft cases.

Our records reflect that since the inception of the methadone maintenance program in Laredo, Webb County, Tex., the reduction in this type of crime has dropped approximately 65 percent.

Very truly yours,

CARLOS Y. BENAVIDES, JR.,
Assistant District Attorney.

Chairman Pepper. The next witness is Mr. Robert F. Horan.

Mr. Horan is the Commonwealth attorney for Fairfax County, Va.

Mr. Horan is a native of New Brunswick, N.J. He attended Mount St. Mary's College, Emmitsburg, Md., where he received his B.S. degree in 1954. Following graduation, he was commissioned a second lieutenant in the U.S. Marine Corps and served as a Marine officer until 1958. Upon leaving active service, he entered Georgetown University Law School and earned his LL.B. degree. He served as an assistant Commonwealth's attorney during 1964 and 1965. In September 1965 he resigned as assistant Commonwealth's attorney to become a partner in a Fairfax law firm. His law partnership terminated in March 1967, when the circuit court appointed him Commonwealth's attorney to fill an unexpired term, and in November 1967 he was elected to that office for a term of 4 years.

Mr. Horan is a member of the Virginia State Bar, National District Attorney's Association, Northern Virginia Trial Lawyers Association, Delta Theta Phi Legal Fraternity, the Marine Reserve Officers Association, and the Young Democratic Club of Fairfax County. He is a member and former secretary of the Fairfax County Bar Association. Mr. Horan is first vice president of the Virginia Commonwealth's Attorney's Association, and in March of 1970 he became the first elected chairman of the Northern Virginia Criminal Justice Advisory Council.

Mr. Horan, we welcome your testimony.

STATEMENT OF ROBERT F. HORAN, JR., COMMONWEALTH ATTORNEY FOR THE COUNTY OF FAIRFAX, COMMONWEALTH OF VIRGINIA

Mr. Horan. Thank you, Mr. Chairman.

I am the chief criminal prosecutor for a jurisdiction containing upward of one-half million people. Prior to the year 1967, drug abuse as a problem in what is essentially a suburban jurisdiction was practically nonexistent.

Commencing in the fall of 1966 and early 1967, we had our first onset of drug abuse, as did most of suburban America. One of the significant things that has happened to us and is pertinent for this committee is that in the last 18 months in that jurisdiction we have had five provable methadone overdose deaths. We have had two others that are probably methadone deaths. In the same period of time we only had one heroin overdose death.

I am here today because of my increasing concern about the direction in which we are being pushed in the area of methadone maintenance. It seems that everyone articulates the position that methadone is not the panacea for heroin addiction, and yet in some quarters it seems that that is exactly how we are treating it.

In my opinion, the news media has added massively to the confusion concerning this drug. I sometimes get the feeling, and that feeling was amplified by the WTOP editorial last week, that some feel that methadone equals rehabilitation, and if a jurisdiction does not have a methadone maintenance program they are simply not in the rehabilitation business. WTOP's view, in my opinion, is patently nonsense and serves only to add confusion to an already confused situation.

The confusion is not alleviated when a physician can stand before this committee, as one did in October of 1970, and state that the use of methadone in treatment is "paralleled in importance only by the discovery of penicillin during this century." I don't know what the founder of the polio vaccine feels about that statement, but it strikes me as grossly misleading.

First of all, I would like to make clear that I support a properly run and properly controlled methadone treatment program. Basically I support the original concepts of the program of Dr. Vincent Dole, in New York City. I firmly believe that with a certain class of addict, there is nowhere to go but up. On the other hand, I believe that many of the original Dole concepts have been prostituted on the altar of the simple solution. There is too much of an attitude in some quarters to consign anyone and everyone who has used heroin to methadone maintenance, regardless of his state of addiction. Even Vincent Dole admits that this method of treatment may consign its participants to a lifetime of methadone addiction, since this compound is a physically addictive one. I oppose such an easy consignment for two basic reasons:

One, because of the nature of hard narcotic use and the hard narcotic users that we find in suburban Virginia—and I suspect that the same would be true in most of suburban America—and two, the increasing availability of this compound as a prime abuse drug.

In connection with the first reason, it is important to remember some of Dr. Dole's original guidelines.

(1) The addict should be at least 20 years of age;

(2) He should have at least 4 years mainline hard-narcotic addiction; and

(3) Other methods of treatment must have been tried and failed before he would be committed to maintenance.

I would suggest, members of the committee, that very, very few addicts in suburban America would meet just those three guidelines. In my jurisdiction, 77 percent of all our drug abuse cases, regardless of drug, involves those aged 20 and below. The phenomena of drug abuse hit us in 1966, while heroin abuse did not hit us until 1969, in the spring. The net effect of this is that today virtually all of our heroin users have less than 2 years' mainline addiction. Most, if not all of them are below age 20; and when they first come to our attention, no other method of treatment has been tried in an attempt to cure them. Thus we can see that most of our addicts, and I use the term loosely, do not meet Vincent Dole's original guidelines.

My concern is that in the search for the panacea for hard-narcotic abusers we might consign to a lifetime of methadone maintenance some very young kids without ever attempting another route of cure. In my opinion, very few kids in my jurisdiction should be so consigned. An analogy to "throwing out the baby with the bath water" might fit our situation.

I would not for 1 minute contest the right of the District of Columbia or New York City to commit themselves fully to massive methadone maintenance programs. But please, for Heaven's sake, let's not commit the rest of the country.

I guess I have read most of what Drs. DuPont and Dole say about their programs, and their writings certainly substantiate their commitment—but their special jurisdictional needs appear to require it—my jurisdiction does not, and I suspect that the rest of suburban America is in my situation and not in theirs.

We presently have in Fairfax County a drug treatment program based upon the therapeutic community concept.

We have been in the business for quite some time now. We are satisfied with our methods of treatment, and if there comes a time when we have a large scale number of hard-narcotic abusers, then we are probably going to take a much harder look at methadone. But that is not our situation today.

The second problem in northern Virginia involves the use of methadone as a prime abuse drug. Supposedly, the situation will be alleviated by FDA regulations which may control the dispensing. I hope those guidelines do that, because prior to any guidelines our situation was atrocious. In the spring of 1970 the Fairfax Police Department and I, after our second methadone overdose death, began to complain about the availability of this drug in the marketplace. Unfortunately, three more deaths were necessary before anything was done to tighten up dispensing guidelines in the District, and two of those deaths involved kids 16 years of age.

We have tried, through the treatment program, the police department and my office, to evaluate our situation with regard to the availability of methadone. I would like to share with you some of the findings that we made, based on a cold, hard look at it in the past year.

First. Large supplies of this drug have been coming out of the District of Columbia, primarily from private practitioners' offices. Much of this methadone has been diverted into abuse circles and in some cases it has become the drug of choice. Some of it is being sold right in the syringe at $1.50 a cubic centimeter. This makes it an excellent profit drug and as much as in the case of at least one physician, he distributes 50 cubic centimeters at a time at $15 a throw.

Upon resale of that at a $1.50 a cubic centimeter the profit is apparent.

Mr. PERITO. Mr. Horan, has this doctor been prosecuted?

Mr. HORAN. To my knowledge he has not. We have no jurisdictional control over him.

In the District of Columbia he can do exactly what he is doing.

Mr. PERITO. Have you recommended to the District authorities that he be prosecuted?

Mr. HORAN. I have had a great deal of contact with the narcotics squad over the year, and the district attorney's office, and they feel their hands are somewhat tied. That is the impression I get.

Mr. SANDMAN. Why are they tied?

Mr. HORAN. Because, evidently, under the existing regulations he can maintain an addict on methadone because he is making a purely medical judgment, and, therefore, it is not criminal under District law.

Mr. WALDIE. Mr. Horan, may I interrupt you?

We are in the middle of a quorum call. I would like to have you complete your statement before the end of the second bell. Perhaps you best complete your statement and then we will come back for inquiries.

Mr. HORAN. The second thing we find is a number of cases of nonheroin addicts being dispensed methadone in the District of Columbia from private practitioners. These are kids that weren't addicts to begin with, and they are getting methadone without being a true addict.

You may have read about the reporter from the Northern Virginia Sun who had never had a narcotic in his life, came over here, plunked down $15 and he got methadone in a handy carryout dose.

Third. Methadone addiction appears to be growing at a faster rate than heroin addiction. Our drug treatment program over the past year found it necessary to engage in medical detoxification of 39 patients. Thirteen of these were detoxified for a heroin habit and 26 were detoxified for a methadone habit. A large majority of those detoxified were below age 20.

Fourth. Some of the users were obtaining methadone by going to one physician on one day and a different physician a couple of days later. This resulted in their being able to obtain a weekly supply from each physician in the same week.

Fifth. Dr. Vincent Dole originally felt that one of the main reasons for dispersing methadone diluted in fruit juice was that nobody would shoot it. We find many, many provable cases of injection directly into the vein of methadone mixed with juice or Tang.

As a matter of fact, the interior of the lungs of one of the recent death cases was coated with a material that was consistent with methadone abuse. There is only one way to get that on the interior lining of the lungs, and that is through a vein.

Many cases of nonfatal overdose began to show up simply because methadone was entirely too much drug for the drug abusers in our area, particularly when it was being injected rather than taken orally. An addict may have been getting 2- or 3-percent heroin in his vein and all of a sudden he is getting a relatively pure drug in methadone and his central mervous system can't stand it. His respiratory system fails, he stops breathing.

Sixth. A great number of our citizens were not even aware that their youngsters were involved in a so-called methadone treatment program in the District. Their kids were in treatment programs. They didn't know the treatment involved the daily dispensing of physically addicting narcotics.

In conclusion I want to say that methadone maintenance probably does have a proper place and is the only mode of treatment in some cases. However, I strongly endorse the caveat of this committee, at page 82 of its report of January 2, 1971, entitled "Heroin and Heroin Paraphernalia," where in this committee said:

> Every precaution against diversion must be observed. While we believe that drug should be reclassified, we do not beiieve that individual private practitioners should be allowed to prescribe methadone for prolonged maintenance of individual heroin addicts.

The footnote to that caveat gets to the heart of the issue, in my opinion, where this committee states: "Methadone maintenance must be accompanied by proper psychiatric, social, and vocational services."

I would only add to that the suggestion that maintenance should not be the original mode of treatment except in an isolated class of cases; and secondly, that in the case of many young suburban abusers proper psychiatric, social, and vocational services will obviate the necessity of maintenance to begin with.

Mr. Waldie. Thank you, Mr. Horan.

There will be, I am sure, a number of questions to be asked of you. Hopefully we will reconvene at 1 o'clock.

The committee will remain in recess until that time.

(Thereupon the committee recessed to reconvene at 1 p.m.)

Afternoon Session

Mr. Mann (presiding). The committee will come to order.

Prior to the recess, Mr. Horan was testifying and we will resume his testimony.

Mr. Horan, you had completed your statement in chief?

Mr. Horan. Yes; I have, sir.

Mr. Mann. All right; Mr. Perito, will you inquire?

Mr. Perito. Thank you, Mr. Mann.

Mr. Horan, I assume from your testimony that you are not opposed to properly run methadone programs; is that correct?

Mr. Horan. That is correct.

Mr. Perito. It is the thrust of your testimony then, if I understand it, that you consider that your problem is different from the problem in the District of Columbia or in New York City; would that be correct?

Mr. Horan. I certainly think that is so, predominantly because I think we have a different breed of addict than New York City has, sir.

Mr. Perito. Would NTA be the type of program that you point to as an example that you could support?

Mr. Horan. That may be a little far.

From the point of view of the one issue of the ability to divert methadone into drug abuse circles, I have no evidence that we have ever seen any methadone in our area that has come out of NTA.

From that point of view I am satisfied with the NTA controls at this point in time.

On the second issue, my difficulty with NTA is that they appear to be, on the surface, entirely too methadone prone. That seems to be the big thing with them as opposed to what I think is a growing tendency in research programs to indicate that different modes of treatment are necessary.

Mr. Perito. And you believe that the propensity toward methadone distribution in a clinical setting causes you, as a prosecutor, problems?

Mr. Horan. Yes; I think so.

Mr. Perito. And those problems come from diversion?

Mr. Horan. They come from diversion. They also come from the psychological attitude, if you will, that methadone is the cure, and you find an awful lot of addicts, who discover it really isn't the cure, it is just another drug for those addicts. It just continues to be a difficult criminal problem.

Mr. PERITO. Based upon your experience, have you found diversion on a manufacturing level in Fairfax County?

Mr. HORAN. No; we have not.

Mr. PERITO. I assume that based upon your experience your diversion is found on the low levels of dispensing, say from private physicians?

Mr. HORAN. Almost entirely private practitioners.

Mr. PERITO. Have you found any evidence of diversion on the drugstore level?

Mr. HORAN. There is a recent report by the Virginia Board of Pharmacy. An investigator who did a report for the Virginia Board of Pharmacy found virtually no diversion anywhere in the State.

Mr. PERITO. So it is fair to say that ordinarily, and based on your experience, the diversion which causes you problems, as a prosecutor, comes from private physicians?

Mr. HORAN. Yes; it does.

Mr. PERITO. Based upon your experience, how do you think that diversion problem can best be handled?

Mr. HORAN. I feel at this point in time a private practitioner simply should not be in the business. He should not be in the business of methadone maintenance. My feeling is that I have never seen a practioner in the metropolitan area of Washington who I feel has the proper supportive services to go along with his program so that he is an effective rehabilitation mode. I think that with the average physician we have run into in the metropolitan area of Washington, all he is is another drug seller. I would hate to think that organized crime ever wants to move in under the guise of a medical license. Organized crime might move into the dispensing of methadone, because it is a high-profit drug as it is being dispensed privately.

Mr. PERITO. You presently have operating in Fairfax County therapeutic communities?

Mr. HORAN. Yes; we do.

Mr. PERITO. I assume by that you mean a drug-free community?

Mr. HORAN. Yes.

Mr. PERITO. And they only use methadone as a detoxification drug?

Mr. HORAN. Actually the treatment center, itself, does not use methadone at all in treatment. We use methadone in the jail facilities as a withdrawal drug to detoxify an addict.

Mr. PERITO. How long has the therapeutic facility been in operation in Fairfax County?

Mr. HORAN. Since September of 1969.

Mr. PERITO. Do you have any statistics from that facility as to the efficacy of their approach insofar as the reduction of crime or incidence of antisocial behavior is concerned?

Mr. HORAN. I don't have any specific statistics that could prove it one way or the other. I do know that of those in the treatment program we have had very few that we later see in the court scene as a criminal statistic.

Mr. PERITO. Do you know, as a general matter, whether therapeutic communities have been successful in reducing the crime rate of addicts under treatment?

Mr. HORAN. I think probably they have been.

Mr. PERITO. Is your thinking based upon studies that you have seen?

Mr. HORAN. Mostly the reading that I have done in the area, from other parts of the country.

Mr. PERITO. If you have any of those studies, I would appreciate you making them available to the chairman of the committee.

Mr. HORAN. I certainly will.

(As of the time of printing of this record, the committee had not received the studies or statistical evaluations from Mr. Horan of the efficacy of drug-free clinics insofar as the reduction of crime or antisocial behavior is concerned.)

Mr. PEPPER. Mr. Blommer.

Mr. BLOMMER. Mr. Horan, would you say that in Fairfax County there are very many drug takers that you would call addicts, as opposed to drug experimenters or drug users?

Mr. HORAN. The head of our Fairfax-Falls Church Mental Health Center, a psychiatrist, refers to our population of drug abusers as being garbage collectors. By that he means they will take anything, regardless of what it is, or what form it is in.

I would suspect an overwhelming percentage of our kids are in that boat. They will use anything. They aren't committed strongly to any one drug, by and large.

We tried to figure out the other day, sitting down, tried to put together a list of those we thought were anywhere near 4 years in the vein, and we couldn't come up with 10, and most of them were addicts that we had dealt with, 7, 8 years ago, coming out of the city of Alexandria, mostly. They are the only ones we could come up with.

Most of our kids are diversified drug users. They have tried heroin a few times here and there, along with a number of other things, and they aren't in the vein that heavily.

As a matter of fact, I can recall no case of a jail prisoner who took much longer than 20 hours to be completely detoxified. Most show absolutely no withdrawal symptoms after the 20-hour mark.

As a matter of fact, we have had kids come in, who supposedly had big drug habits, who never show any withdrawal symptoms the whole time they were in the jail.

Mr. BLOMMER. Mr. Horan, do you have what you would call a black market in drugs in Fairfax County and if so, what drugs are available.

Mr. HORAN. I think they are all available, unfortunately. I think our drugs essentially come from about three major sources.

First, I would be in the hard narcotics field, heroin and maybe some morphine on rare occasions. That almost invariably is coming out of the wholesalers in the District of Columbia. I know of only one wholesaler that we have ever dealt with in Fairfax County in the heroin area. That is one source.

The second source is the methadone source which appears to be private practitioners in the District.

The third source is the American free enterprise system at its best, and that has to do with marihauna, LSD, and hashish, and there it is a very amateur, nonprofessional, somewhat noncommercial market where kids are using a tremendous amount of ingenuity to come up with drugs.

A great case in point was a couple of years ago I had a phone call from the prosecutor in Lincoln County, Nebr., Fort Platte, Nebr. He wanted to know if we had a kid in our community, for want of a better name, Joe Blow, and I said yes, we did. As a matter of fact, we were prosecuting him for a drug offense at that time. They had just picked him up in Nebraska with his trusty sickle in hand, he was cutting down a field of marihauna in Lincoln County, Nebr., and had 17-pounds in the trunk of his car when the Lincoln County, Nebr., police arrested him.

He is the free enterprise type who would come back with a tremendous amount of marihauna for sale.

Mr. Blommer. You have said that you find that methadone in your black market comes from physicians in the District of Columbia that are prescribing it. Are there any physicians in Fairfax County that are prescribing methadone that you feel is entering in that black market?

Mr. Horan. No; we can't show any physician in northern Virginia adding to the black market. We have a couple of cases that involve about eight persons who are receiving methadone maintenance from Virginia physicians, but we find no indication of diversion.

Mr. Blommer. If you found a doctor in your county that you felt was more of a peddler than a healer, is there any statute in the State of Virginia that you could use to prosecute that doctor?

Mr. Horan. Yes; I think we could prosecute him under our Drug Control Act.

Mr. Blommer. You have heard Dr. Jaffe refer to his law. Then the State of Virginia has a comparable law?

Mr. Horan. It is comparable law. In my opinion as a prosecutor it would be very, very difficult to get a conviction because I think you run into the basic problem that the physician sitting there before a jury, he can lay it all off on the medical considerations, I made a medical judgment and this was my mode of treatment.

I think you would have trouble convicting him under the statute. I think, in Virginia, a far better vehicle would be to go through the State board of medical examiners to revoke his license, or in the case of pharmacists, the State board of pharmacy to revoke his license. I think that would be a far better method of getting at the corrupt practitioners than would be a criminal prosecution under the Drug Control Act.

Mr. Blommer. Would you favor Federal legislation in this area?

Mr. Horan. I am totally in favor of Federal legislation that sets up strict controls on methadone availability. One of the reasons I feel so strongly about it is that I know that for a year we banged our heads against a brick wall to try to cut down the availability of this drug that was coming out of the District of Columbia.

We have been totally unsuccessful. We have got three deaths to prove it. It seems to me only Federal legislation is going to control that situation, at least as far as Virginia is concerned.

Mr. Blommer. Thank you, Mr. Horan.

That is all the questions I have, Mr. Chairman.

Chairman Pepper. Mr. Mann?

Mr. Mann. No questions.

Chairman PEPPER. Mr. Steiger?

Mr. STEIGER. Thank you, Mr. Chairman.

Mr. Horan, to your knowledge, has any physician ever been charged in the State of Virginia under the statute to which you just referred?

Mr. HORAN. Yes; I think there have been charges under that statute.

Mr. STEIGER. To what degree of success?

Mr. HORAN. The net effect was that the physician just turned in his license and the prosecution ended there. They didn't pursue it.

Mr. STEIGER. He didn't continue the practice of medicine?

Mr. HORAN. He lost his right to practice medicine.

Mr. STEIGER. You mentioned in several instances of private physicians in the District of Columbia who are the source of diverted methadone. How many are we talking about?

Mr. HORAN. At least four.

Mr. STEIGER. At least four.

And you know who they are?

Mr. HORAN. Yes; I think we have a good idea.

Mr. STEIGER. What kind of volume are we talking about. I guess the thing that would really interest us would be not only that which finds its way into Fairfax, but that which is being diverted in the District, also.

Mr. HORAN. One example that I can give you is in the case of one specific physician. We have had him under surveillance a number of times over in the District because we feel that at least two of the drug deaths we have are related to his supply.

In the course of surveillance of this physician there was never a time when the physician had less than 10 patients an hour in his office at $15 a throw. If you give him a six-hour day and a 5-day week, he has about $325,000 gross minimum in just his dispensing habits.

Mr. STEIGER. Excuse me. All of these patients, based on your observance, were receiving methadone?

Mr. HORAN. Yes; everybody that was in there. That is what he is there for.

Mr. STEIGER. He didn't do much else?

Mr. HORAN. He is supposedly a general practitioner, but I think his main business is methadone. In his case, he is dispensing in a form that is probably costing him $0.25. In my opinion, the whole treatment, at least as we know it, has to do with dispensing methadone and nothing more.

Mr. STEIGER. Right.

Mr. HORAN. There are no rehabilitative or vocational services.

Mr. STEIGER. Do you know the form, the physical form?

Mr. HORAN. Methadone mixed in Tang.

Mr. STEIGER. It was the same form in which it is given at the clinic as you described?

Mr. HORAN. That is right.

Mr. SREIGER. It has been your experience, which you stated in your statement, that contrary to some of the medical opinion we had that at least one victim apparently did shoot the mixture in the Tang?

Mr. HORAN. Every one of our dead ones was in the vein with methadone; in one case it was the methadone mixed in Tang. Every one of them was shooting but only one of them, to my knowledge, had Tang.

Mr. Steiger. Did you discuss with the District of Columbia authorities this particular physician?

Mr. Horan. Yes; I did.

Mr. Steiger. Did they corroborate your observance?

Mr. Horan. As a matter of fact, the District of Columbia Police indicated to me that on four occasions they had detectives who went to this doctor's office and got methadone.

Mr. Steiger. Do you know what action they took against him?

Mr. Horan. There was a grand jury proceeding, and the grand jury did not indict. I am only basing this on hearsay, as to what the grand jury proceeding was. There has never been a prosecution for illegal dispensing against that physician.

Mr. Steiger. Is there an AMA organization in the District?

Mr. Horan. I believe there is.

Mr. Steiger. Do you know if anybody has called this matter to their attention?

Mr. Horan. I think it has been. I think it has been brought to the attention of the D.C. Medical Society.

Mr. Steiger. As far as you know—this fellow—there was no action taken to limit this activity?

Mr. Horan. No; there was not.

Mr. Steiger. Now, these other three that you are aware of, are they conducting as extensive an operation as this gentleman?

Mr. Horan. One of them may be bigger.

Mr. Steiger. Is it possible that there are other physicians that you aren't aware of?

Mr. Horan. Oh, yes; I am sure of that. What happens to you. I think, is that certain physicians develop a name in drug circles, that name is mentioned, and it is kind of a public relations program to become known and then you become the source.

I think that is what happens. Maybe the kids in Montgomery County are going to someone else; I don't know.

Mr. Steiger. Have you ever checked with the FDA to find out if any of these four have a so-called IND number issued by the FDA?

Mr. Horan. I have checked with them on two of them and they do.

Mr. Steiger. They do?

Mr. Horan. Two of them do.

Mr. Steiger. What was the response of the FDA when you advised them of your observance?

Mr. Horan. We never had an awful lot of success with FDA. I guess we had about as much success as the Bureau of Narcotics and Dangerous Drugs. There seem to be some loggerheads between the two of them as to what the policy should be. I finally brought it to the attention of Virginia's two U.S. Senators and at least, based on the speech that Senator Byrd gave on the floor of the Senate, he didn't have an awful lot of success with FDA, either.

Mr. Steiger. I think loggerheads is a very general philosophy.

I take it, then, as recited both by the chairman and Mr. Mann, and I guess everybody else, that you do favor very specific Federal statutes which obviously would be applicable in the District of Columbia?

Mr. Horan. Yes, sir; I do.

Mr. Steiger. Limiting the dispensing of methadone?

Mr. Horan. At this time I don't think private practitioners should be in the business.

Mr. Steiger. Based on your testimony, at an estimated cost of 25 cents, this man is making a profit of $14.75 a patient, less the overhead for rent and lights and heat, and at the rate of 10 patients an hour, he is there for somewhere in the neighborhood of $150 an hour?

Mr. Horan. At least.

Mr. Steiger. Mr. Chairman, I won't pursue this any further, but I would like to compliment the staff and Mr. Horan for spelling this out so specifically. I think one of our basic problems has always been the tendency to accept the medical profession as being incapable of the kind of action you described, and I, for one, have never subscribed to that, the sanctity of any profession. They are just people, and I would hope that we would be able to do something, Mr. Chairman.

Chairman Pepper. I am sure the committee will give very serious consideration to that problem.

Mr. Horan. I would suggest, Mr. Chairman, if I might, I think one of the difficulties that you run into is that by and large medicine as a group has never paid much attention to this subject because it was just beyond normal medical needs. I think what has happened is that you do have a very small percentage in the clinical end, and of course they are some of the great minds on the subject, Jaffe, Wyland, and Dole. Those are the people who have the most experience with it. Medicine generally has never dealt with it.

It is not taught in medical schools. When the private practitioner gets into this business he is dealing with a very difficult situation because he is not really in a knowledgeable position.

Chairman Pepper. If I may corroborate what you said, my wife and I have been identified for a long time with the Parkinson Foundation and Institute, and we have come in contact with some of the outstanding authorities who have developed and discovered methods for the practical application of L-Dopa in the treatment of Parkinson's disease, and these authorities say very strongly that the average practitioners should not be permitted to give L-Dopa because they don't know that much about it.

I know a Senator here in the Congress right now who was being given, by certain medical authorities, large quantities of L-Dopa. One of the outstanding authorities in the country visited the Senator and reduced his dosage very much and he improved, because it is a specialized subject and you have to know a lot about it before you can wisely dispense it.

Mr. Horan. Yes, sir.

Chairman Pepper. Have you finished?

Mr. Steiger. Yes, sir.

Chairman Pepper. Mr. Rangel.

Mr. Rangel. Yes.

Mr. Horan, you support the efforts being made by the District of Columbia and New York City in the area of treating addicts with the use of methadone?

Mr. Horan. Yes; in a certain class of cases.

Mr. Rangel. And you also support its use in the jails of Fairfax County?

Mr. Horan. We don't support it as a matter of maintenance, only as a matter of withdrawal.

Mr. Rangel. For detoxification?

Mr. Horan. Right; bring them down, and we bring them down inside of 48 hours.

Mr. Rangel. What is the ethnic composition of the drug addicts in Fairfax County?

Mr. Horan. That is a good question. My county is about 5 percent black. Using the normal phrase "minority group." I don't think there is a high percentage of any other minority group in my county. Yet in the year 1970, of 322 prosecutions only 10 of the 322 were blacks.

In our black community, by and large, we never really had a drug problem until the fall of last year when one major dealer—and this is the only real wholesaler I have ever dealt with in the heroin field—moved into our black community, began a selling operation, and unfortunately about the time we got into the act there were a number of 15- and 16-year-old blacks in the vein, pretty serious heroin habits.

Of course, we never would have cracked it, except for a District of Columbia policeman. He is really the one who cracked it for us.

Mr. Rangel. So your overwhelming population in Fairfax County is white?

Mr. Horan. That is right.

Mr. Rangel. If you had to give a general classification, what would they be, middle income?

Mr. Horan. High-middle income. In median income we are about the third or fourth county in the country, I think.

Mr. Rangel. Were you here earlier when I asked Dr. Jaffe whether he thought that the medical profession had established a different standard in taking care of the problems, medical problems of poor people as opposed to the medical problems of middle income people?

Mr. Horan. Yes; I heard that question, and I thought about that.

Mr. Rangel. Aren't you really supporting that type of thing in your testimony today?

Mr. Horan. No. I feel this way, and I feel pretty strongly about it: You look at the statistics, the statistics still indicate that one-half of all heroin addicts in the country live in the city of New York. Of those in the city of New York, let's face it, most of them come from Harlem or Spanish Harlem. As long as there was a problem in the city of New York in those communities, nobody really cared, who cared outside the city authorities?

The rest of the country didn't worry about it, it wasn't their problem. I think, by and large, because it was the low-income groups in the city of New York, no one cared.

That is a tragedy. I think we should have been learning something from New York's 30 years of experience and we didn't.

On the other hand, I think that medicine by and large now sees it on a large scale, all over the country. Medicine is looking at it, and I think medicine, like everybody else, is scrambling for an answer. I would not impute to medicine the motive that they are willing to take the easy way out and just consign these low-income groups to addiction.

Mr. Rangel. Let's look at it in view of your testimony. What you are basically saying is that you would like to see medical science provide other ways to take care of your addict population rather than relying on methadone?

Mr. HORAN. Yes; I would.

Mr. RANGEL. And you also say if the situation gets so bad in your community that there is no way out except methadone, then, and only then, will you consider this?

Mr. HORAN. Absolutely.

Mr. RANGEL. I am asking you, would you not give the same consideration to the District of Columbia and the population of New York City, that is, until you can evaluate that our addict population has reached that point then you would have this same reservation about the distribution of methadone for any community?

Mr. HORAN. I sure would.

Mr. RANGEL. I am only hoping that the medical profession will share your ideas.

Mr. HORAN. Of course, Mr. Rangel, my difficulty is in evaluating New York. I, necessarily, have to rely on what Dr. Dole is saying, Dr. Gollance is saying, what New York's experts are saying about their population, and they tell me in their writings that what they are essentially aiming at is the guy who has been in the vein for many, many years, the guy who is just fully, totally, and completely hooked on heroin.

They are saying to me the only way we can treat them is with methadone. My answer is, I don't know.

But I do know this, that I don't think methadone is the answer if you have got a guy only 2 years in the vein and if they are committing New York addicts with 2 years in the vein to methadone, I think they are wrong.

I think they should be going some other route of treatment.

Mr. RANGEL. So if my breed of addict, or a part of my breed of addict, is similar to what you described as similar to Fairfax County's breed of addict, we would share the same ideas?

Mr. HORAN. Yes; I don't think the addict, the 17-, 18-, 19-year old, I don't think he should be committed to a methadone maintenance program at that age or with that short a term of addiction. When I talk of breed of addict, really what I am talking about is in New York where you have a lot of people who have been in the vein 10 years, I don't have any of those. But I think that those that are in the same position as mine, the 18-year old who has been in the vein for a year, I don't agree with New York putting him on methadone any more than I agree with Fairfax County putting him on methadone.

Mr. RANGEL. Mr. Chairman, I want to join in with my colleagues and thank the staff for bringing Mr. Horan before us. I think it substantiates the fact that not everyone has just accepted methadone as a solution to our present problem.

Thank you, Mr. Horan.

Chairman PEPPER. We all will profit very much from your testimony.

We have some more questions.

Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

Mr. Horan, let's back up a little bit. Over in Fairfax County, those that are on drugs, the kids that are on drugs, a high percentage of the users are on marihuana; right?

Mr. Horan. Well, a less high percentage all the time. In 1967 one case out of every 10 would be a stronger drug than marihuana. By last year it was one case out of every four. I think there has been a real graduation of marihuana users.

Mr. Winn. The percentage of those who were on marihuana have switched and gone to the harder drugs in the percentage of one out of four now; right?

Mr. Horan. Yes.

Mr. Winn. All right. Physicians prescribe all kinds of drugs for different things, which is within their realm. It is a little hard for me to comprehend that all the bad guys are in the District of Columbia, physicianwise, and all the good guys are in Fairfax County.

Mr. Horan. I wouldn't want to create that impression although, you know——

Mr. Winn. I think maybe we have.

Mr. Horan. In fairness to our medical society, I would say absolutely that one of our real sources of help out there has been the medical profession. I think they police themselves.

Mr. Winn. That leads me into the next question: Do you think it is because of the strength of the Fairfax County medical society that they are keeping a stronger and tighter rein on the doctors and physicians over there that might be prescribing, say free lancing, methadone compared to the District of Columbia?

Mr. Horan. Yes, sir. I think that is probably part of it. I think another part of it is the fact that when the drug phenomena hit us in 1966, medicine got in the act early, and medicine began taking a look at this subject that they knew nothing about.

Let's face it, the average physician, if he is below age 25, he never had a course in medical school that involved the three main abuse drugs in society today, LSD, marihauna, and heroin. They aren't taught in medical school because they have no therapeutic value.

Mr. Winn. They are still not being taught now?

Mr. Horan. Well, Georgetown——

Mr. Winn. But not nationwide?

Mr. Horan. No; it is not.

So medicine, first of all, in a community such as mine, has got to get into the act to understand it to begin with, because they are in a foreign field, just like every layman out on the street.

Our medical society did that. Our medical society took a good hard look at prescribing practices, which I think is really the key.

I think medicine has got to look at themselves and say what are we doing.

Mr. Winn. Right. That clarifies that, because I don't think you really made that clear, at least I didn't get it that way in the earlier testimony.

Now, the Drug Control Act is basically controlled again by each State. That would go right along with the same vein of thinking, depending on which State is really going to clamp down and which ones are going to close their eyes to some of the acts; right?

Mr. Horan. That is right.

Mr. Winn. Which would come into effect possibly again because of the control and the District of Columbia control might be lighter than in Virginia.

Mr. Horan. I think that is right.

Mr. Winn. Okay.

Well, I don't know about Baltimore—how about Baltimore?

Mr. Horan. I never had all that much experience with Baltimore.

Mr. Winn. All right. You mentioned several times the history of the jail cases, and I understood you to say that you have a system, I believe you referred to some hours and you said 24 hours as an average for getting them detoxified?

Mr. Horan. Most of the time, they are detoxified in 24 hours.

Mr. Winn. Twenty-four hours?

Mr. Horan. That is without any——

Mr. Winn. Yes; right.

Mr. Horan. Wherever it is felt that they need help to come down, it is all over in 48 hours.

Mr. Winn. Then you use methadone; right?

Mr. Horan. Jail physicians prescribe Dolophine in a certain amount and that is what the prisoner gets and it never goes over 48 hours.

Mr. Winn. What is their reaction to the methadone within that 48-hour period?

Mr. Horan. It all depends on what kind of addict they are.

Mr. Winn. Give us the worst example and give us—and the lightest one obviously would have no reaction, probably. The heaviest——

Mr. Horan. One of the things you constantly have to watch for is the kid who comes in there and the first thing he is saying when that jail door closes is, get me the methadone, because the word is out among that breed that you can get this stuff if you qualify and you may have a guy coming in there that isn't really any addict at all, and he wants methadone because he is going to get high.

Two days in jail high beats 2 days in jail any other way. So he wants it.

Mr. Winn. How does he get high on oral methadone that is taken with Tang?

Mr. Horan. Anybody who says you don't get a high on methadone is dreaming. I am talking about you and I. The problem is—and I see the newspapers constantly use this term—a "noneuphoric substitute for heroin"—it is not a noneuphoric substitute.

If you are talking about a guy who has been in the vein 5 years, yes; but you know, you could do anything to that guy and it is going to be noneuphoric compared to heroin. With most other people we get a high.

Many women today in hospitals after a very difficult delivery, the prime drug used the following day after the delivery, if the woman is in pain and having problems, is what they call in the hospital Dolophine, and that is methadone, same drug. They give her Dolophine.

You talk to any woman who has ever had Dolophine and ask her if it is euphoric. She says, "You bet your life. That is the reason they gave it to me, it lifted my spirits and killed the pain. That is why they gave it to me." It does have a definite euphoria on the scale.

It is not up to heroin or morphine, but it is probably on the level with Demerol; anybody who has ever had Demerol will agree it has a good euphoria.

If a guy comes into jail and is really not an addict, he is going to get a high.

Mr. Winn. Wait just a minute. I want to point out strongly, Mr. Chairman, that this is in direct conflict with testimony we have heard in the past from several of these other experts. I want to point it out because it is completely different.

Chairman Pepper. Apropos of what my colleague said, the way I believe it was stated by Dr. Jaffe this morning was that with the first little bit of taking of methadone you do get a high, but then if the doctor giving it keeps on experimenting with the individual and gets to a point where that person is stabilized and he doesn't get a high.

Wasn't that the gist?

Mr. Winn. I believe that was Dr. Jaffe's statement, Mr. Chairman, but I believe one of the other experts said that there was no euphoric sensation from orally taken methadone.

Mr. Horan. I say that is flat out untrue.

I think the problem is that they are constantly asking a true addict is there any euphoria, and he is telling the truth, for him there is none, but he is comparing it to heroin. It is like the Irishman and the Englishman seeing the guy laying in the ditch. The Englishman said, "Look, that guy is drunk." The Irishman said, "No, he isn't, he moved."

It is about the same ball park, really.

There is medical research that will substantiate the fact that if you get to a certain level of heroin use, say the guy who is maybe a hundred dollars a day in the vein, he gets to a certain level where the heroin itself is noneuphoric because he has gotten too high on the scale, there is no euphoria left in the drug for him.

In fact, there are some in research who say you could create the same blockage with high doses of heroin as you do with high doses of methadone, because you reach the point where the drug itself reaches the block.

Mr. Winn. Let me ask you one more question.

Of the drug deaths that you referred to, could the drug deaths be from an overdose of oral methadone?

Mr. Horan. That is a very good question. In two of the cases it appears that the dead boy was taking it both orally and intravenously. It could have been the combination, although our pathologist suspects that because of the massive infusion when you go in through the vein, that is what causes the quick respiratory system depression.

Mr. Winn. We have had some statements made here and the facts presented to us, that some of the deaths not in Fairfax County, but some of the deaths from methadone really proved out to be not deaths from methadone at all, but a combination of lots of other things; is that possible?

Mr. Horan. Sure it is.

Chairman Pepper. The committee has to go to the floor to vote.

We will take a brief recess. We will be back in a few minutes.

(A brief recess was taken.)

Chairman PEPPER. The committee will come to order, please.

Mr. Keating, would you like to examine?

Mr. KEATING. Mr. Horan, I was not here for your entire testimony. However, the portions that I heard in the question and answer portion of your statement I found to be excellent.

I think Mr. Rangel had indicated, and I agree, that the goal we want to achieve is rehabilitation and not total maintenance for the lifetime of the addict. So I don't have any specific question, but I wanted to make those comments.

Chairman PEPPER. Thank you.

Mr. Horan, your testimony about the drug problem in Fairfax County is of particular interest to those of us who are on this committee now who were members of the committee in the last Congress, because either in the latter part of 1969 or the early part of 1970 we held a hearing in Fairfax County, you recall, in the courthouse?

Mr. HORAN. Yes, sir: the fall of 1969.

Chairman PEPPER. What interested us was that here was a very fine county, composed of very fine citizens, high level of income, primarily residential in character, that had a heroin problem.

I recall very well that we had some students from one of your high schools who testified at our hearing and told about the prevalence of drugs in the schools, the high schools.

So, you, as the Commonwealth's attorney of Fairfax, are telling us that in 1969 the drug problem in Fairfax County became serious and continues to be, I imagine, a very serious problem.

Mr. HORAN. Yes, sir; is it.

Chairman PEPPER. Do you find that drugs, either in one way or another, are related to the crime problem in your county?

Mr. HORAN. Mr. Chairman, we have seen in the last 2 years, anyway, a very high percentage of drug-related crime. They aren't actually coming into the court as a drug case, a drug prosecution, but in the area of burglary or robbery. We had two murders last year where the defense to the murder was that it was committed under the influence of LSD. So we have seen a very high percentage of drug-related crime.

Chairman PEPPER. So you are concerned about the drug problem in relationship to crime primarily as the Commonwealth's attorney.

You have observed, as a prosecuting attorney, certain reactions to the use of methadone which have also concerned you and which you have been very ably telling us about here today. You are speaking, of course, out of your experience as a prosecuting attorney, not as a medical doctor, I assume?

Mr. HORAN. That is right.

Chairman PEPPER. I suppose we all agree that somehow or another we must find a way of dealing adequately with the drug problem, particularly heroin problem, and we don't want to create another problem in trying to get rid of the first.

Mr. HORAN. Exactly.

Chairman PEPPER. You have raised a very serious question as to whether or not a private physician, unskilled in respect to this substance of methadone and others of similar character, should have authority to distribute it, dispense it. There is always a possibility of abuse. We are very much concerned about that very thing. We had witnesses yesterday who brought out the very question you talked about here today, the danger of allowing private physicians to prescribe methadone at will.

If it were to be distributed by a private doctor, would you consider it desirable, if not imperative, that there be a registry so that every doctor who did prescribe methadone would have to report it to a central force or data bank so that any other doctor who wanted to protect the public interest would have easy access to that information to know what other doctors were prescribing, maybe in the same day for the same patient, and also it would give an opportunity for somebody looking at that data bank to see how much methadone, for example, was being prescribed by any one doctor, whether he was making a primary business of that; would you favor such a data bank?

Mr. HORAN. I would feel that, if the private practitioner is going to be in the business, the data bank is absolutely imperative. I think that is part of our problem here.

Second, I think once a data bank was established, it should be monitored by someone outside those who are in the business.

Chairman PEPPER. Well, the last question is: Would you think it desirable for the Federal Government to give very serious consideration to trying to find something better and less objectionable than methadone in dealing with this matter of breaking heroin addiction?

Mr. HORAN. Yes, I do, Mr. Chairman. My concern is with the question of leaving a drug personality when you are finished with your methadone program.

It would seem to me Federal money would be well spent in the area of trying to come up with a different tool, a different pharmacological tool.

As a criminal prosecutor I sit there and when somebody shows me reduced crime rates I have got to be impressed; that means something to me. Maybe I am selfish. Maybe I don't like as much business as I have.

I would like to see a reduced crime rate. But I always have in my mind—what is the price? You know, we could reduce the rate of rape by providing every rapist with a woman, for example, and you could go to your handy service clinic and get a woman and then we cut rape in half, or worse, and what is the price? I feel the same way about methadone. What is going to be the price of having this many drug personalities, and that's what we have when the drug is out in society.

I think the Federal dollar would be well spent, coming up with a detoxification and abstinence potential in another drug.

I think the chairman mentioned before the possibility of coming up with a drug that would make it revolting to have one narcotic.

With the American pharmaceutical mind we ought to be able to come up with something like that.

Chairman PEPPER. We have discovered from our various hearings that about half of the crime is related to drug use, and, therefore, if we could cut down drug use we would reduce crime.

That is the reason the House of Representatives is concerned about drugs. So we are dealing with something directly related to crime, are we not? I ask you as a prosecuting attorney.

Mr. HORAN. There is no question about that.

Chairman PEPPER. Thank you very much.

Any other questions, gentlemen?

Thank you, Mr. Horan. We appreciate your coming here today.

The committee's next witness is Dr. Daniel H. Casriel, a New York psychiatrist who has long been interested in drug addict rehabilitation programs.

Dr. Casriel received his medical training at the University of Cincinnati, and served as a captain in the U.S. Army Medical Corps.

Dr. Casriel has served as court psychiatrist in the New York City Court of Special Sessions; psychiatric consultant to the Synanon Foundation; clinical assistant professor of psychiatry at Temple University Medical School, and cofounder and medical-psychiatric director of Daytop Village, a therapeutic community for addicts.

Dr. Casriel, in addition to the private practice of psychiatry, is the director of AREBA, an addict treatment program in New York.

He is the author of "So Fair A House," the story of Synanon, as well as the author of several articles.

Out of your wide experience, Doctor, we are very much pleased to have you here today. I am advised that you are accompanied by Dr. Walter Rosen and Rev. Raymond Massy, who will supplement your statement and respond to questions.

Mr. Perito, would you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Casriel, as you have been kind enough to provide us with some written material and a statement by Dr. Revici; is that correct?

STATEMENT OF DR. DANIEL H. CASRIEL, DIRECTOR, ACCELERATED REEDUCATION OF EMOTIONS, BEHAVIOR, AND ATTITUDES (AREBA); ACCOMPANIED BY REV. RAYMOND MASSEY, INSTITUTE OF APPLIED BIOLOGY, INC.; AND DR. WALTER ROSEN

Dr. CASRIEL. Yes; I have given you some of the written material and my remarks after Dr. Revici's initial lecture on his new drug called Perse. I didn't give you the article that Dr. Revici has written, but I assume you have that.

Mr. PERITO. Yes; we do.

Mr. Chairman, at this point I respectfully request that the materials which have been furnished to us by Dr. Casriel be incorporated into the record.

Chairman PEPPER. Without objection, they will be received and will appear following Dr. Casriel's testimony.

Mr. PERITO. Dr. Casriel, you have worked with the addiction problem in a substantial portion of your professional life; is that correct?

Dr. CASRIEL. That is correct. Almost 20 years.

Mr. PERITO. Is it fair to say that your therapeutic approach is an amalgamation of your learning from Synanon and Daytop, plus some innovative thinking of your own?

Dr. CASRIEL. Also my training in Columbia Psychoanalytic Institute, my experience in Synanon, my establishment of Daytop, my experience in Daytop and my own private practice.

I have a new amalgam of treatment now which is different from all of these and I find it clinically very effective.

Mr. PERITO. It is my understanding, Doctor, that in your treatment approach you have been using a new experimental drug; is that correct?

Dr. CASRIEL. Yes; it is, Mr. Perito.

Mr. PERITO. And that experimental drug can be properly referred to as a rapid-acting detoxification drug?

Dr. CASRIEL. Yes; it can.

Mr. PERITO. That drug is nonaddictive?

Dr. CASRIEL. It is nonaddictive.

Mr. PERITO. Could you kindly explain to the chairman and members of this committee what your experience has been with the use of this drug?

Dr. CASRIEL. Yes.

Chairman PEPPER. You are talking about the drug Perse, P-e-r-s-e?

Dr. CASRIEL. Right.

I met Dr. Revici, the developer of this drug, a year ago last February, and I guess like most of you who might have seen it for the first time, I didn't believe my clinical eyes, but in the past 14 months I am convinced that this is a major breakthrough, on a chemical basis, of the addictive phenomena of addiction.

I personally have given it to about a 100 addicts, about 30 of whom have remained in my therapeutic community, called AREBA, which stands for the Accelerated Reeducation of Emotions, Behavior, and Attitude.

I have never found any harmful side effects from Perse per se. It has removed not only the addicting quality, but it gives the individual a sense of well-being, the type of well-being he had before he was addicted.

However, I would like to make sure that the committee realizes there is a difference between an addict who is addicted, and an addict who is not addicted.

After you remove the addiction you still have to treat the individual.

My work in the past 20 years has been with people. I have rehabilitated the addicted and it really doesn't make much difference what they are addicted to, whether it is heroin, or morphine, or alcohol, or homosexuality, or delinquency, or whatever.

The basic underlying personality structure has to be changed.

Perse has made my job much easier with those character disorders called the addict.

Chairman PEPPER. With what?

Dr. CASRIEL. With those people, the psychiatrists call the addicted personality.

Chairman PEPPER. I see.

Mr. PERITO. Doctor, is it fair to say that you are drawing a distinction between physical addiction and psychic addiction?

Dr. CASRIEL. Yes; there is a tremendous distinction. Perse removes the physical addiction, the physiological addiction. It takes the type of psychotherapy that I am doing, which is much different than classical psychotherapy, to restructure the addict.

I think in terms of the physiological addiction, the physical addiction, it is interesting that the several people I heard before me who spoke about methadone and methadone blockade really have not mentioned what do they mean by blockade, where does the location of the blockading effect, what is the physiological cause of addiction, how does addiction work, what is addiction, how does it work, why does methadone blockade, what does it blockade, et cetera, et cetera, et cetera.

These answers have never been mentioned. I am aghast, really, that this whole concept of methadone maintenance started with the research, clinical research of six highly addicted heroin addicts by Dr. Dole, who then transferred them to methadone and maintained them on methadone.

There is no theory, no pharmacological theory to substantiate methadone addiction or methadone maintenance.

I met Dr. Revici. He is a fine old gentleman. He speaks in such a quiet voice and he is so esoteric it took me about a year to really understand his understanding of the nature of addiction, and if I may, in the next few minutes, I would like to give this committee my interpretation of his understanding of the nature of addiction.

He developed Perse with a pencil and paper. He theorized the nature of addiction from his knowledge of intercellular physiology, biochemistry, and pharmacology. With this theoretical approach he then theorized the type of pharmacological type of drug that was needed to solve it.

Chairman Pepper. That is the way Dr. Einstein developed the Einstein theory, with a pencil and paper.

Dr. Casriel. On a piece of paper, a pencil and piece of paper, and you might have said he never had enough money to do it any other way.

He took this chemical and applied it successfully to thousands of laboratory animals and then finally applied it to several thousand patients that he has detoxicized from heroin without any harmful effects.

I have detoxicized about 100 without any harmful effects whatsoever. I have personally taken some Perse, myself, to see the effect that it would have in preventing—it also prevents alcohol addiction, alcohol intoxication—to see what it would do to me in preventing alcoholic intoxication. Normally 2 ounces of alcohol taken by me will give me a drunk and I fall asleep. One big cocktail will get me sleepy on an empty stomach.

I took two of his capsules of Perse and proceeded to drink 8 ounces of scotch without any side effects of dysarthria or intoxication. It is true my belly felt a little bloated and my wife told me I smelled like a kangaroo, but I was not drunk. I had no harmful effects.

I have no hesitation, if necessary, to inject this whole bottle of Perse into me. I am that sure of its safety.

This is a 100 cubic centimeter bottle. The addict only takes 5–10 cubic centimeters.

Chairman Pepper. Orally?

Dr. Casriel. Injectable, because we know how much is going in that way. The first day about four times, the second about three times, the third day twice and the fourth day one injection, and this is supplemented with the pills which are continued for the week.

So that at the end of the week this person is detoxicized from his addiction.

Chairman Pepper. You mean if anybody had been taking heroin for a protracted period of time and had that course of injections which you just described, all in 1 week, that at the end of that week that person would not have any further craving for heroin?

Dr. Casriel. While he is on Perse, no further physiological craving, but if he stops taking Perse and takes heroin, he will get his old habit back, his old euphoria.

The first injection of Perse immediately cuts down the amount of heroin they need to sustain their addiction. I have seen people go from 20 bags a day to one bag until they came to me the next day and got another shot of Perse.

Now, how does Perse work? Dr. Revici stated that heroin is an alkaloid. An alkaloid is a building block of protein. Those chemicals which are addictive are basically alkaloids building blocks of proteins.

Now, if you put a specific protein into your body like milk, you will get a specific reaction to that milk, you will get a marked inflammed area and you will develop certain antibodies to counteract the proteins in the milk.

But an alkaloid is only a small portion of a protein and it doesn't develop a specific antibody when it is injected. Instead, the body develops a generalized defensive substance which is a steroid, which combines with the alkaloid, be it heroin, or methadone, or morphine. But because it is not specific there is an overproduction of this steroid.

For instance, if one unit of heroin got into the body, the body might manufacture in an analogous two units of steroids, one which combines with the heroin and neutralizes the effect of the heroin.

The other one is free in the body. It is this free steroid which is not attached to the heroin which causes the addictive phenomena, it causes the craving phenomenon.

Now, when a person who has never used a narcotic injects a small portion of narcotics into his body or takes it orally, the body's defense system is activated. The injectable route is the quickest route. If you digest it, it take a little longer to get into the bloodstream. The effects of the narcotics will be felt by the body, it goes to the brain centers. It diminished the body's awareness of pain and it is a basic depressant. One dies of an overdose because one's respiration stops and then the individual stops breathing. That is how one dies of an overdose.

One of the lifesaving measures is to give artificial respiration until the effect of the narcotic is passed out of the body.

Now, the body removes heroin in about 4 to 6 hours. It takes the body about 36 hours to remove methadone. That is why one injection or one pill of methadone can last at least 24 hours, whereas one injection or one pill of heroin would only last 4 to 6 hours.

But when this heroin is detoxicized it is removed by the body, the steroid which the body has developed previously to defend itself against the heroin is free and it gradually develops an attraction to the body tissue, setting up a type of pulling or craving sensation. It sets up in the body what Dr. Revici calls an anoxicbiosis, which when translated into English means a negative oxygen metabolism. It is very similar to the type of pain and feelings you would get if a tourniquet were tied around your hand. You get a negative oxygen metabolism with an increase of lactic acid. The oxygen isn't present to break down the carbohydrates in the body.

What we have then, after the injection of heroin after 4 hours, the heroin goes through the body, we have this steroid which turns upon the body which produced it, causing an anoxicbiosis. This is perceived by the addict as a craving, as a yearning. As this anoxicbiosis builds up greater and greater, depending on the amount of steroids, there is localized acidosis that develops in the body and the body attempts to compensate for this localized acidosis by a generalized alkaline reaction. This is manifest clinically as the so-called cold turkey phenomenon. It is very uncomfortable for the addict to experience. It is seen with high amounts of steroid—not high amounts of heroin—but a high amount of steroid developed over a long period of addiction or due to methadone maintenance. The blockading effect of methadone, by the way, is just the overwhelming of the body's ability to produce more steroids and the body then develops a tolerance for methadone, just as some people who start to become heavy alcoholic drinkers can show heavy tolerance for alcohol before they become drunk. I have seen people drink 10 ounces of alcohol and look like they are sober.

But the steroid which has been produced in response to this foreign alkaloid, remains in the body about 7 days. It takes about 7 days for this steroid to break down. This is why it takes 7 days to detoxify somebody from addiction. It takes 7 days to maintain a state of oxygenation in the body while the steroid is being broken down.

Dr. Revici has developed other pharmacological tools to go along with this basic tool called Perse. For instance, when a person has been on methadone maintenance, for instance, he has so much steroid in him that all the Perse that you give him still causes some side effects, you just can't get enough of this oxygenizing substance into the tissue and that is all that Perse is.

Mr. PERITO. Doctor, excuse me.

Are you saying it is more difficult to detoxify a methadone addict than a heroin addict?

Dr. CASRIEL. Yes, because a person on methadone maintenance, has tremendous quantities of defensive substance built up in them. Dr. Revici has developed a substance which will temporarily combine and neutralize the steroid in the blood and this is called trichlorbutinol. It is an alcohol, but the interesting thing about this alcohol, it doesn't develop more steroid.

For instance, if I have given a person who is really under tremendous craving, and you know he has a large steroid component because he has been on, say, methadone maintenance, I would give him, together with the Perse, some trichlorbutinol. Within 7 to 15 seconds he feels better because that alcohol combines with the steroids in the bloodstream. It takes about 7 to 15 minutes for the Perse to get into the tissue to counteract the anoxiobiosis. If the person is already in secondary stages of withdrawal, the cold turkey phenomenon, you can give him a little hydrochloric acid to counteract the generalized alkaline condition that he has.

If we know the degree of his steroid developed, we can detoxify a person without any side effects. If we don't know the amount of steroid he has in him we might get some withdrawal effects after using Perse because we havn't given him enough Perse or we don't give it often enough. It is true we do get some side effects, residual side effects of their detoxifying process.

Mr. PERITO. Doctor, are you concerned about the possible toxic effects of the selenium in that solution?

Dr. CASRIEL. Not at all. I never knew what selenium was. Dr. Revici told me there are four types of selenium. Three are highly fatal in minute dosages. One is completely inert. Of course, he uses the one that is completely inert. It has no effect on the body. It acts apparently as a catalytic agent to the peroxide in Perse, and hydrogen peroxide is an oxygenizing agent. Perse has a fatty acid base. Dr. Revici's research for the last 50 years concerned itself with these fatty acids. This allows this material to get within the cell.

For instance, water doesn't permeate the skin. Fats don't permeate the skin, but he has developed substances that can permeate the skin and get right into the tissue so that other things such as muscular aches and cramps and arthritis can be relieved directly because he can add an oxygenizing substance directly to the tissue, wherever he wants to apply it.

So what happens is that when the Perse gets into the cell, the binding of the selenium to the peroxide is free. The peroxide that was bound to the selenium is free. The peroxide is then used as an oxygenizing agent, removing the negative oxygen balance and giving the person a sense of well-being and very frequently the addict will say, "My God, what did you give me? I feel as if I got a fix, my stomach feels warm and good, my head feels clear, my head feels clear."

"What kind of drug are you giving me because suddenly I feel as if I got a fix, except my head stays clear and I didn't get any high and I didn't go on the high, but my stomach feels good and I feel as if I had a fix, except I don't have any side effects of having a fix."

Mr. PERITO. It is a feeling of normality?

Dr. CASRIEL. Yes; Feeling of normality; saying, "I haven't felt like this since before I shot dope," is normal.

Now, the interesting thing with the physicological addiction is that the body responds in a nonspecific way to several things, so that not only will the body develop a steroid in defense of the alkaloid that you inject, but frequently a hot bath or hot shower will cause a steroid development.

I remember when I was medical superintendent of Daytop, on Saturday night the residents would take a hot bath or hot shower, get dressed, and would split out the door. I never could figure out why they used to leave on Saturday night after they were all cleaned and dressed up. I figured some of them were afraid of the visitors, or since they are dressed up, they might as well leave, or it is Saturday night and they remember how it used to be on Saturday night. I am beginning to realize one of the reasons they would split is because that is when they took their hot baths or hot showers. A person who has been physiologically clean by cold turkey procedures can, under certain circumstances such as a hot bath, develop a craving again as if he had need of addiction.

Mr. PERITO. Doctor. I would like you to clarify something: The committee has heard some testimony in the past that there are primary and secondary withdrawal syndromes. Would you care to comment on this phenomena, if such syndromes are, in fact, recognized by clinicians treating addicts?

Dr. Casriel. That is probably 99 percent psychological. However, it is theoretically possible that he might have had a hot bath, or it is theoretically possible he is under tension. When I get tense my "fix" is to go to the Caribbean for a week. Other people's fix is to have a scotch and soda. Other people play a good game of golf or tennis.

The addict, with his psychological memory, says, "When I feel like this I want a good shot of dope." Perse is not going to cure the addict, it is going to resolve his addiction and keep it, certainly, within manageable results, because on a psychological theoretical level, every addict would rather get high on a $5 bag than remain addicted, spending $100 a day. He would not have to be addicted, therefore the amount of crime that he has to commit will be tremendously reduced because he won't need $100 to get a reaction to his heroin.

So certainly this can remove the crime tremendously. However, I wish to go on record as very strongly suggesting to the committee that the person who had been addicted is in tremendous need of psychological retraining and retreatment.

I also want to tell you as a psychiatrist that our classical means of treating are completely ineffectual when it comes to the treatment of a psychological addict, or as a matter of fact, the psychological delinquent, the criminal, and so forth and so on.

In the past 10 years we have developed a new process which has gotten tremendously favorable results. In AREBA nine out of 10 people that come in stay. I expect that those that stay will be well, psychologically well; emotionally, behaviorally, and attitudinally reeducated, and if necessary reeducated morally, educationally, and socially.

The treatment process is a reeducation of that human being in affairs of his thinking, feeling, and behavior. This takes time, and the medical profession is not yet geared to this type of treatment. But we can buy the time with Perse to train and retrain the professional army of psychologists and psychiatrists and social workers to truly rehabilitate the human being, because heroin or methadone is only one chemical. These kids that are on methadone maintenance, I have seen them on cocaine maintenance, barbituate maintenance, and delinquency maintenance.

If you think giving them methadone is going to remove the problem, it is going to give you an additional problem.

One of the big problems you are going to get is amphetamine and cocaine. Cocaine especially because methadone doesn't stop them from enjoying cocaine, and cocaine is a much more dangerous drug than heroin is. So are amphetamines and, of course, so is LSD.

But at least we now have a chemical that is nonaddicting, that is nontoxic in any way, that will remove the addictive phenomena. Also, by the way, work for barbiturate addiction and alcoholic addiction. It can sober up the alcoholic as it does the narcotics addict and also sober up the barbiturate or a person in a barbiturate coma the same way.

I, for the life of me, can't understand why they have been dragging their feet on this chemical.

Mr. PERITO. You are referring to the FDA now?

Dr. CASRIEL. Yes. Over 2,000 people have taken it. I would be willing to take this whole bottle by injection or orally. I am not a hero—it is a perfectly safe drug. It is a perfectly safe drug.

Chairman PEPPER. How long has it been now since Perse was submitted to the Food and Drug Administration?

Reverend MASSEY. About two and a half months.

Mr. RANGEL. That is the second time?

Reverend MASSEY. That is the second time.

Dr. CASRIEL. To me this is lifesaving.

Chairman PEPPER. You personally treated how many patients when you first started?

Dr. CASRIEL. Approximately 100.

Chairman PEPPER. And you personally observed those patients?

Dr. CASRIEL. I personally observed those patients and I have personally observed my reaction with Perse in me with alcohol.

Chairman PEPPER. And you have had no injurious effects in your patients?

Dr. CASRIEL. No.

Chairman PEPPER. That has achieved the effect you have described, to detoxify?

Dr. CASRIEL. Yes. I have been able to detoxify three people who were on methadone maintenance with this, who have come to me. One was on 140 milligrams of methadone maintenance, one was on 160 milligrams of methadone maintenance, and one was on 240 milligrams of methadone maintenance.

In addition, the person on 140-milligram methadone maintenance was also taking about 60–100 milligrams of barbiturates a day and was also taking anything he could take, anything he could get, which included cocaine, and so forth.

Chairman PEPPER. Doctor, how would that interesting, and certainly challenging, drug be properly adapted for general use into a drug addiction treatment program?

Dr. CASRIEL. Under methadone—and I agree with the previous speaker that methadone should not be in the hands of the general physician—it shouldn't be used, but if it has got to be used, don't put it in the hands of general physicians. I think it is chaos under clinical conditions.

But Perse can be given to every physician in the country. This is not addictive. You only need to use this at most for a week.

Chairman PEPPER. You mean Perse could safely be used and prescribed by a private physician.

Dr. CASRIEL. Every physician in the country. It is not a narcotic. He doesn't need a special narcotic control, it is not dangerous, it is not addictive.

It will also detoxify alcoholism and barbiturate addiction. It is a lifesaving drug. It is a major breakthrough in treatment. It has given me the opportunity to treat the addict as I would treat the average character disorder, because we don't have to treat them against their physiological craving. We remove that right away. They are immediately able to get into treatment. I don't have to wait for a period of detoxification of a month or 2 weeks, or whatever.

They are immediately psychologically capable of being engaged psychologically.

I wouldn't think of trying to psychologically treat a person on methadone any more than I would try to wash a person who has a raincoat around them. You just can't get through that protective rubberized skin.

Mr. PERITO. Knowing what you do, Doctor, about Perse, would you use methadone to detoxify an addict, rather than rely on Perse?

Dr. CASRIEL. No; this is much easier, much simpler, much cheaper, much quicker, much everything.

Chairman PEPPER. By the way, what is the cost of Perse?

Dr. CASRIEL. Reverend Massey, you are the administrator to Dr. Revici.

Reverend MASSEY. I can't recall the exact cost, but I understand it should be less than $1, or less than $1.25 or something like this.

Chairman PEPPER. Less than $1 a bottle?

Dr. CASRIEL. About 5 cents a shot.

Chairman PEPPER. How long would that bottle that you said cost less than a $1, how long would that treat a heroin addict?

Dr. CASRIEL. An average addict needs about 6 shots, that is about 20–40 cubic centimeters. You could treat two-and-a-half or three addicts with this.

Chairman PEPPER. Treat two-and-a-half addicts. That is phenomenal, Doctor.

Dr. CASRIEL. Yes, it is, Mr. Pepper. It is a major breakthrough. I didn't believe it when I first saw it because I have been treating drug addicts for a long time. But I have been with this now for 14–15 months, and it works. What can I tell you?

Mr. PERITO. Do you think your AREBA approach would work without Perse?

Dr. CASRIEL. Yes; but not as well. We don't have any problem holding them. These kids stay. We suck them in psychologically. We don't have to work against the physiological craving.

Mr. PERITO. If that precludes the physiological craving it is possible for a person to detoxify on Perse but relapse soon after the effects of Perse wear off?

Dr. CASRIEL. Yes. You are not going to cure the psychological problem with this. You will cure the physiological addiction with it. Those people still need to be treated.

Mr. STEIGER. Would counsel yield on that point?

I wondered. Doctor, the person who repeats the process several times, does he require additional Perse each time?

Dr. CASRIEL. No.

Mr. STEIGER. In other words, there is no cumulative resistance to Perse?

Dr. CASRIEL. Not at all.

Mr. STEIGER. Thank you, Mr. Perito.

Mr. PERITO. As far as you know, the 1,900 patients that have been treated by Dr. Revici are drug free?

Dr. CASRIEL. I don't know. I haven't followed Dr. Revici's patients. I have enough trouble following my own.

Reverend MASSEY. May I answer that question for you? Approximately 1,900 patients treated with Perse, I can say that these 1,900 are not drug free. I can say approximately 7.5–8 percent, that I know of and follow up, are drug free.

What does that give us? Approximately 143–145 individuals that I know of that are free of drugs.

The other remaining amount are either individuals whom I could not keep up with because of no address, or moved, no contact, out of town, because we get them from Boston, we get them from California, as well, coming for this treatment. So, therefore, I can say I can put my hand on approximately 145 individuals who are drug free from this medication here.

Dr. Casriel. I would like to say one other thing, and I think it is imporatnt in passing.

Dr. Revici does not charge anyone anything for his treatment. I have gotten medication now for 15 months without cost to me, and I pass that on to my patients. In other words, I don't charge them for this drug.

Dr. Revici is the head of the Institute of Applied Biology which which is a nonprofit corporation, and I have seen him treat literally scores while I have visited him, scores of indigents. There has never been a question of fee. I have seen him treat people who come in who are extremely wealthy, and there has never been a question of a fee. This is a man who is one of the true humanitarians that I have met, one of the very, very few.

Chairman Pepper. Doctor, in a treatment program, in the use of Perse, would there need to be clinics set up over the country to get it, in addition to the doctors?

Dr. Casriel. No; the Perse, itself, could be given through medical channels because it is not addicting, it is not habit-forming. You just take it for a week. It is like penicillin. If you got pneumonia you take penicillin for a week and it cures pneumonia. If you are addicted and you take this for a week it cures your physiological addiction.

As Reverend Massey said, a certain small percentage, once they got free of the monkey on their back, will stay clean. A much larger percentage, because they are psychologically mixed up, will revert back to addiction.

However, they don't like a large habit. They get no fun out of a large habit. Once they found out this can at least remove the habit, they won't need $100 a day to maintain their habit. One shot of heroin will give them a much better high than $100 worth before.

However, these people now can be engaged in psychological treatment. You have to treat the individual psychologically. It really does not make any difference if they are addicted to morphine or barbiturates, or LSD, or anything else, you have to treat them psychologically.

I also again wish to reiterate that the current classical psychological treatment is not effective, but we have developed an effective process. This will give us time to tool up. Currently, right now, Phoenix House, which is the largest rehabilitation center in the country, which is over 1,000 people, have sent to my institute 15 of their top clinical people who are actively involved in the rehabilitation of their addicts, and I am retooling them in my current knowledge, the psychological knowledge of what I have learned.

Drug addiction can be cured. This doesn't mean just a removal of drugs. It means changing the underlying structure of the personality. We have to do this. We cannot settle for anything less because there are just too many people who are addictive prone, certainly over half the country.

Chairman Pepper. Doctor, I hate to interrupt you.

Members of the committee, we will take a short recess.

(A brief recess was taken.)

Chairman Pepper. The committee will come to order. We will continue with the questioning of Drs. Casriel and Rosen and Reverend Massey.

Mr. Mann, any questions.

Mr. Mann. Doctor, you have been using Perse and the followup for about 14 months?

Dr. Casriel. Yes.

Mr. Mann. What dropout rate have you had in your experience?

Dr. Casriel. Well, I am a psychiatrist and I treat the total spectrum of problems. I have developed a private therapeutic community called AREBA, which certainly about 90 percent are there because of the use of heroin and similar destructive drugs, a couple LSD. We have only lost five. About 95 percent have stayed. We are now graduating our first members.

The program is geared for 9-month rehabilitation courses. We sent our first member back to your home State, Miami, Fla., about 2 weeks ago. He is a beautiful boy. I helped establish Self-Help and the Concept House in the Miami area. He is now in Self-Help, helping scores of others.

Chairman Pepper. Have you finished, Mr. Mann?

Mr. Mann. Yes.

Chairman Pepper. Mr. Rangel, who has been very much interested in Perse, has asked to speak to a question out of order because he wants to clear up some possible confusion.

Mr. Rangel. Yes.

Reverend Massey, you gave a very small percentage of Dr. Revici's that are drug free.

Reverend Massey. Yes, sir; correct.

Mr. Rangel. But these are persons you can identify as being drug free?

Reverend Massey. Correct.

Mr. Rangel. This does not imply that the other patients with the doctors are not drug free?

Reverend Massey. True.

Let me state here that I know of individuals going through this treatment, and I want you to understand that I have been with Dr. Revici right from the beginning when he started the use of Perse. Every day, 7 days a week for the past 17 months. Individuals motivated somehow, self-motivation or through motivation of the court, have come to Dr. Revici for treatment for the detoxification from the use of heroin, alcoholism, or some type of drug, have been treated and detoxified. But once they have left, some go immediately back to the use of drugs.

Now, why? Because probably their habits were very high, 40, 50 bags a day, which totals about $100 a day. To get it back down to a

$2-a-day habit these individuals who return directly to the use of drugs after detoxification have no real intent of really staying drug free.

Then we have those who are really motivated within themselves to really leave the drug scene. These individuals, some that I can account for, like I stated, still others who are still drug free, I am sure, but cannot be reached.

Mr. RANGEL. Reverend Massey, this drug only brings the addict back to where he was before he became an addict; is that correct?

Reverend MASSEY. True.

Mr. RANGEL. And the patients that you have been dealing with mainly have come from the Central Harlem community; is that correct?

Reverend MASSEY. Correct.

Mr. RANGEL. So no matter what this drug does, it sends them back to the same addict environment from which they became addictive in the first place?

Reverend MASSEY. Correct.

Mr. RANGEL. So I believe that Dr. Casriel was saying this does not take care of the psychological problem which may exist before the person became an addict?

Reverend MASSEY. It only takes care of the physical.

Dr. ROSEN. The concept has to be, in anything such as this, that there is a totality of treatment. You can't deal with drug addiction, with alcoholism, with any of those problems, unelss you have a totality of treatment. That totality must encompass both psychological and physiological. It must encompass rehabilitation, vocational rehabilitation, counseling, changing the patterns of their economic existence, changing the patterns of where they live and how they live.

If you are going to have any kind of program that is worth a darn you will have to have a program that encompasses all of that.

What Dr. Casriel was saying, Perse is great, you can give it and have an addict withdrawn without any problems and then you must approach the other aspects of the situation that need attention. It can be done immediately with the totality being added as you go along.

But it is never going to work without funds because Dr. Revici just started with this 14 months ago. Of course, he has many addicts coming in and going out the old revolving doors, but no money to do the total program. It is not going to work to that effect until you have a totality of program in anything, either the drug addiction or the alcoholism.

Mr. RANGEL. I would like to state for the record that it was this drug and Dr. Revici I was speaking about when I first had the opportunity to join this committee and having been born and raised and still live in this community, I don't suppose anybody was more cynical when it came to drug rehabilitation than myself.

I just want the record to state that my first impressions, I felt the need to bring with me the administrator of the Harlem hospitals drug rehabilitation program. That is how cynical I was before I had the opportunity to meet Reverend Massey and talk with Dr. Revici. The results and what we witnessed with patients was so unbelievable that the doctor from Municipal Hospital has now gone back on a daily basis in order to continue with this chance to see the miraculous results that have taken place. I personally have gone back on several occasions to the clinic. I have talked with patients, talked with youngsters that have given up on being decent human beings, given up and have talked with their parents and grandparents, many times in the presence of responsible State officials that have subscribed publicly to the methadone program and yet vigorously support the efforts that have been made by Dr. Revici.

I just want that stated for the record. I only regret that the illness of Dr. Revici prevented him from more eloguently being present. But I hope that in the near future, whether we have further hearings or not, that each one of you will have the opportunity to really meet this very decent human being who I believe has made an outstanding contribution in this area.

Chairman PEPPER. I want to say for the record that Mr. Rangel has been impressing upon the consideration of the committee this remarkable work and Dr. Revici's remarkable work and your splendid cooperation for some time. He has entertained, as he has expressed here today, high hopes for it. That is one of the bases on which we initiated these hearings, to see if we can't get the Federal Government to have a part in the development of some of the brilliant leads that we have already learned about. This is one of them.

Now, anything that offers a hope, even the hope that you have testified about here today, should receive the strongest approbation of the Government of the United States as soon as the Government is satisfied that it is safe and will do substantially what you claim for it. Because this would, to a large degree, enable us to combat the drug problems in this country.

Seventy percent of the people in prisons in this country are there for alcohol abuse. We have got to spend billions of dollars if we are going to use the current methods of dealing with drug addiction. If we could develop something like this it would make the whole problem immeasurably more easy and cheaper and effective.

Dr. CASRIEL. I asked Dr. Rosen to come with me. He is a general practitioner in Harlem. He has been spending a considerable amount of his time with alcoholism and the problems of that.

Chairman PEPPER. You find it effective with respect to alcoholism?

Dr. ROSEN. Let me give you a little bit of background that might be of interest.

I started practice in Harlem 21 years ago, and I agree with what Mr. Horan said about the training that a doctor gets in terms of drug addiction and alcoholism. It is practically nil.

I had an excellent residency in internal medicine and I came into practice and thought I was pretty well equipped to handle anything that came along. All of a sudden I am operating a practice in Harlem, I see alcoholics, drug abuse, and I don't know what to do about it. The only thing to do when a drug addict came into my office would be to suggest Lexington, Ky. It has a facility and that is about where you can go, and they would laugh in my face.

This was a period of frustration for many, many years and at periods of time I would knock my brains out, calling social workers, trying to find something to do for them, somehow to handle the situation.

I got to the point once in terms of the methadone we are talking about in the private practitioner's hands, there were a number of houses at one point, about 4 or 5 years ago, who were dealing with drug addiction: Exodus House, Phoenix House. These drug addicts are pretty shrewd. They come in with, "Doc, I am drug addict, I want to kick the habit and if you give me something to help it. I swear I am going to kick it. I have a job, a family, I can't go into a program."

Most of the time, of course, this was something I wouldn't accept from them. I thought at this point maybe if you get a drug addict or any kind of addict who has some motivation, maybe you can use that motivation and direct it.

So I contacted Exodus House and we got together on a program where as somebody came to my office under those circumstances I would say, "Look, if you are really sincere and you want to do something I will give you enough Dolophine, methadone, to withdraw but not yet, you first have to go to Exodus House, you have to get involved with a meeting there, get a letter from them and come back here.

"I will give you enough for 2 days, until the next meeting, and 2 days more, and 1 day more, until you are withdrawn."

As Mr. Horan said, public relations in the drug addict community is so great that they were falling all over themselves in my office waiting for prescriptions for methadone.

Sure, they hit the first meeting, the second meeting, but I think out of the whole group, maybe I did about 30 in a month's period of time, there wasn't one that really made it.

Really what they were doing, if the habit is getting to be so high that they can't afford that kind of habit, the methadone cuts it so that they can go and start back down again on one bag instead of five or three instead of 10, or if things are tight on the street and they can't get it, methadone is a good thing.

I don't know their names, but there are a lot of practitioners I know of who will give you a prescription any time you walk in. They are not involved in drug-addiction programs. They are selling methadone prescriptions.

Chairman PEPPER. Mr. Steiger, any questions?

Mr. STEIGER. Yes, Mr. Chairman.

Let me understand, Dr. Casriel, this Perse will detoxify anybody who is addicted chemically, I use that advisedly, recognizing that an opiate is a natural derivative, including alcohol; is that correct?

Dr. CASRIEL. That is correct.

Mr. STEIGER. When you say detoxify an alcoholic, are you saying that works when a guy is hungover, will this cure the hangover feeling, because this is something I understand?

Dr. ROSEN. No; hungover is not a criteria of alcoholism. What we are dealing with is somebody who has passed over the line from social drinking to compulsive.

What the Perse will do, and it is very interesting, because of this stuff Dr. Casriel came up with, because I didn't know some of these concepts—some of the concepts up at Columbia about the development of alkaloids—what happens in anybody's body when they take a drink, what is the physiological mechanism. They have come up with some studies that have shown there are actually alkaloids produced in the brain that are similar to the alkaloids of hallucinogenic substances.

Just to get back to your question of what Perse does, in the same sense it will detoxify a drug addict, in the disease of an alcoholic there is a physiological mechanism that creates the compulsion and Perse will destroy the physical compulsion of that disease. So that they will go through withdrawal like a dream.

Alcohol is more frightening than narcotics. They die from alcohol withdrawal, but not from narcotics.

Mr. STEIGER. Assume they have a man in a state of alcoholic intoxication. Have you had any experience—or you, Dr. Rosen, or you—or perhaps Reverend Massey has observed this—we give Perse to the man in the state of alcoholic intoxication or under the influence of alcohol or LSD; what is the result?

Dr. CASRIEL. With alcohol he is sober. With LSD, it doesn't help.

Mr. STEIGER. He gets sober with one shot?

Dr. CASRIEL. Well, I have only had about half a dozen acute alcoholics come into my institute, but with one shot they get sober; yes.

Dr. ROSEN. It varies, and just how darned drunk they are. I have had them falling down drunk and it doesn't always sober them up, but where a second shot——

Mr. STEIGER. In what period of time would it sober up a person reasonably drunk?

Dr. ROSEN. About 5 or 10 minutes; 5 or 10 minutes after the injection you will have someone just weaving a bit, sober.

Mr. STEIGER. What would happen if an addict, whether it is in speed, freak or whatever, if he were to take Perse, or Per-se, which pronunciation do you prefer?

Dr. CASRIEL. You name it. Perse.

Reverend MASSEY. I think Dr. Revici's pronunciation is Per-se, being French, it is Per-se.

Mr. STEIGER. What would occur, or have you considered the possibility of the individual who, anticipating a breakdown of his character, would take Perse in advance of either amphetamines or alcohol?

Dr. CASRIEL. I already mentioned this. I did this to myself.

Mr. STEIGER. You took that prior to your——

Dr. CASRIEL. Prior to the 8 ounces, and I didn't get drunk, and 2 ounces will get me drunk.

Reverend MASSEY. May I state here, also, with the addict himself, if he takes this prior to an injection of heroin he will get high.

Mr. STEIGER. He will get high?

Reverend MASSEY. He will get high.

Mr. STEIGER. How about amphetamines?

Dr. CARSIEL. Not amphetamines. It works on barbiturates, alcohol, and narcotics. These are all alkaloids.

Mr. STEIGER. All right. In the production of this substance obviously it is inexpensive to produce. Is Dr. Revici producing it himself?

Dr. CASRIEL. Yes.

Reverend MASSEY. In his laboratories.

Mr. STEIGER. Has he approached a pharmaceutical house or have they approached him?

Reverend MASSEY. They have approached him.

Mr. STEIGER. And he is not interested?

Reverend MASSEY. Yes, he is; but he wants to get Federal Drug Administration approval.

Mr. STEIGER. You mentioned anoxicbiosis. Is that a characteristic symptom of all of the withdrawals, of either alcoholism or narcotic withdrawal?

Reverend MASSEY. I can't answer that with authority, because I am not, you know, I am not Dr. Revici. I think the anoxia, the negative oxygen metabolism is the criteria.

Mr. STEIGER. All right. Again using the same anticipatory vision, do you know if Dr. Revici has measured the oxygen deficit effect?

Reverend MASSEY. Yes; he has.

Mr. STEIGER. Giving this prior to say just exertion because, you know, we develop anoxia if we climb the stairs.

Reverend MASSEY. I saw his book that was sent to the Food and Drug Administration with all the tests with the oxygen differentiation, with Perse, without Perse, and so forth and so on. He has all that documented.

Mr. STEIGER. That is a measurable situation?

Reverend MASSEY. Yes; he has that measured.

Chairman PEPPER. Would you let me interrupt you just a minute?

We have this as a matter of committee business. I have had a note passed to me by Mr. Wiggins, the ranking Republican, advising me that five members of our committee have other commitments and cannot be here tomorrow, and since all of us would like to hear the testimony for tomorrow, we will defer tomorrow's hearing until a later date.

Mr. Steiger, you may continue.

Mr. STEIGER. Doctor, both of you are, I assume, aware of no consistent ill effects in the use of this. On the other hand, you don't know of any prolonged use. By prolonged—is there anybody, Reverend Massey, perhaps you could help us—is there anything in the 7 months' period of your exposure to Dr. Revici's treatment, do you know of anybody who has been treated, say at least twice a month, or once a month?

Reverend MASSEY. No, Mr. Steiger, no; in reference to that I know Dr. Revici has given this over a long period, to laboratory animals, without any harmful side effects.

He has also told me the amount he has given mice and rats that is if similar amounts were given to human beings in terms of weight, about 6 liters have to be injected before a toxic response. That is less fatal than the water. I couldn't inject 6 liters into the body.

Mr. STEIGER. All right. All the substances that make up this material are available?

Dr. CASRIEL. Inexpensive and available.

Mr. STEIGER. Inexpensive and available, and you say you can give it orally but it simply takes longer to achieve the same effect, in a larger dosage?

Dr. CASRIEL. Right, a little larger dosage; yes.

Mr. STEIGER. In your experience with your community with AREBA, do you find yourself combating the obvious response of the dedicated addict who says, "You found this wonderful thing and I am now able to get high for little or nothing and there is really no reason for me to stay straight because I can get——"

Dr. Casriel. No; that hasn't been my experience. AREBA is for an upper-middle-class youngster and we seek them in psychologically and they don't even think about drugs after a few days of AREBA.

Dr. Rosen. Most of them in my group, which is entirely different from the AREBA group, come and eventually agree to go through this treatment because they have some motivation, so they go and have it. But what happens to many of them is that they get thrown back into the same environment and same friends and it is not a question of using this and knowing they are going to go back to it. The motive is there originally, but the same life pressures cause them to relapse.

Mr. Steiger. The guy goes back to his own group and who started in the first place, he is still better off because he can conceivably hold a job and do all of these things?

Dr. Casriel. He doesn't have to be addicted any more.

Mr. Steiger. I understand that, but there is no blockage effect—yes: there is a blockage effect as far as the narcotic——

Reverend Massey. Let's put it this way: This also reduces the mental desire for the use of the drug, as well.

Mr. Steiger. That is pretty hard to measure, isn't it, Reverend?

Reverend Massey. I am telling you.

Let me tell you from what I know, not from what I am guessing at: I see 75 percent of our patients being treated. When I say 75 percent, that is a large percentage, in and out of a hospital.

Now, we have seven male beds and three female beds. Those who go into the hospital and stay the length for treatment, I see them all. I am there every day.

Mr. Steiger. That is 1 week?

Mr. Perito. Is this Trafalgar Hospital that you are referring to?

Reverend Massey. That is right.

Mr. Steiger. This is in the hospital for 1 week?

Reverend Massey. Correct; for the 1-week period.

There is something amazing about this medication. The individual who is in the hospital for the 1 week, when he is discharged and comes back to the office where the doctor talks to him, I talk to him, he states he has no desire whatsoever, no desire whatsoever for the use of heroin or what have you that addicted him previously.

Now, how does he take on this desire after treatment? He returns to the environmental surroundings. He is first offered by the pusher in the neighborhood a bag of heroin free. Why? Because he has detoxified himself, he is not addicted any more, he has no desire. I get this constantly from most individuals who stay through the period of treatment. But he falls back into that old environment again, no job and society constantly turns him away.

When they see he has a record or has been addicted to drugs he is turned back to his environment because society rejects him, because he was a previous addict.

Mr. Rangel. I would like to state that while Dr. Casriel and Reverend Massey have stated that the addict treated says he felt normal, I think the tragic thing is that after treatment at the clinic they have merely said they want a job.

Dr. Casriel. Right.

Mr. RANGEL. I could see then that if I was unable to fill that need for a job, how easy it would be for them to go right back into the same population. So I think we are both saying the same thing. Reverend Massey, in addition to working very closely with Dr. Revici, has a long reputation of working very closely in the community, so that he really wears two hats when he is working in the laboratory, because the other is his very close identification with the addict population in my district.

Mr. STEIGER. I just have one question. I am about through.

You know, we heard Dr. DuPont previously, and I don't remember who else, that the "I feel normal" reaction is one that they have heard from people who are on methadone maintenance. I don't want to make an equation here, but obviously they feel an improvement, and there is clearly a chemical improvement because the physiological craving is answered and there is no high and so they feel relatively normal.

Are they getting any kind of a comparable situation out of Perse and if not, why not?

Dr. ROSEN. Simply because of the fact that they are being normal on a drug. They are taking the drug to be normal. With Perse, you give them the drug and detoxify them and the noncravings and the normal feelings they have are while they are not on medication. You do that with an alcoholic where the craving lasts 3 months with this up and down sensation that he needs a drink. I will take them through withdrawal and they will tell you they have been through drying-out places before and they know they have got this constant hassle with needing a drink on Perse without tranquilizers, without any sedative drug, they will say, I feel normal. But they are not on addictive drugs while they are saying it.

Reverend MASSEY. Gentlemen, may I say here that with methadone —and I was for methadone at one time because I had no other source of referral. I figured that if methadone was available, shoot, why not, if it is going to reduce the crime rate in the communities, if it is going to allow an individual to become employed, why not. But then when I approached Dr. Revici in coming up with a medication that is not addictive, whereas an individual does not have to depend on a drug to survive, to work every day and to lead a normal life, then I felt that if Dr. Revici can fulfill these desires of coming out with a medication that will detoxify an individual 100 percent, that is, taking the drug out of the body and leaving it normal like myself. I am under no addiction at all—then I feel that an individual who speaks normal from the use of detoxification with Perse, then he actually speaks the truth.

Now, how can an individual who is taking methadone in place of heroin, even if he is maintained, say he feels normal? The body has drugs in it. If he has used—if methadone is used as a treatment for a number of days, he still has drugs in the blood cell. He is not normal. He will have reactions. He will have a desire, because the body is calling for more drugs at certain times.

It is impossible for an individual who is on methadone. I have taken methadone, myself, and I think I heard a gentleman ask whether or not an individual can get a high off of methadone orally. I was never on any drugs at the time, and I have experimented with drugs for the main reason I wanted to be able to converse with the addict, and

I am out in the street at 3 and 4 o'clock in the morning with the addict trying to help him, and to be able to communicate with the addict I have to understand him.

I have tried—not LSD, I am sorry—I have tried heroin, cocaine; marihuana is out of the picture because that is not a drug. I have tried some barbituates, Seconol, you name it, I have tried it, except LSD and speed. I know what I am talking about.

Mr. STEIGER. What happened when you took methadone?

Reverend MASSEY. I got high off of 10 milligrams—I got high.

Chairman PEPPER. Is that all?

Mr. STEIGER. Yes, sir.

Chairman PEPPER. Mr. Winn, would you yield?

Mr. WINN. I will be glad to yield.

Chairman PEPPER. Thank you very much. Mr. Keating, you may inquire.

Mr. KEATING. I am interested in a couple of points. Maybe you said and maybe I didn't hear it, but I assume that you implied there are no withdrawal symptoms with the use of Perse.

Dr. CASRIEL. If it is used correctly there is absolutely no withdrawal symptoms.

Mr. KEATING. They don't go through the suffering that is associated with withdrawal?

Reverend MASSEY. May I answer that question?

I don't like to, like I say—I noticed with the addict who is going through treatment in the hospital—and let me say Dr. Casriel is in one location and I am in another—there may be some symptoms as far as where I am. There may be some symptoms of withdrawal, and when I say "symptoms" they are very mild, running eyes, running nose, yawning, some crampiness of the stomach.

With the use of Perse they may have some aches, but they are so minor they are variable.

Dr. CASRIEL. I agree. When I say no symptoms I mean——

Mr. KEATING. No comparison. Everything is relative?

Dr. CASRIEL. Very moderate.

Mr. KEATING. The gentleman mentioned something before about the high numbers confined in jail because of public intoxication. I used to sit on the bench for a number of years. We have had them in court and the idea was to put them in jail for a few days and send them home or else keep them a night in jail.

Would Perse be, or could it be used in this situation where they are arrested and it is not safe to leave them on the street because they can be physically harmed and they have to be brought in? They could be treated with Perse and then go home?

Dr. CASRIEL. In 15 minutes they are sober.

Mr. STEIGER. Winos, too?

Dr. CASRIEL. In 15 minutes they are sober.

If a wino has no brains left because he has drenched his brain, that is something else.

Mr. KEATING. The population of our city jails—and I can speak from experience—are occupied mostly by people who have been arrested for public intoxication.

Dr. CASRIEL. Mr. Keating, I have been thinking about this for many months now. I can see the use of Perse like peanuts in a bar and before you leave to drive home take one or two peanuts called Perse and drive home sober.

Mr. KEATING. We have been through Antibuse. The governments are spending thousands and hundreds of thousands of dollars on alcoholism.

We have councils all across the country. If this works as effectively as you say, in my area where we are fighting for a new workhouse facility or correctional institute for misdemeanants, we could reduce the size of the facility substantially by simply having this form of medication to treat the alcoholics.

Dr. ROSEN. There is no comparable medication. Antibuse doesn't——

Mr. KEATING. I understand that. I am speaking generally of all these programs and all this money being spent in all these areas. If this is as effective as you say——

Dr. CASRIEL. Mr. Keating, I think this is revolutionary. I can say you are going to have a lot of inquiries because I am going to get busy on that letter and a lot of councils I have worked with through so many years, contacting you, that people on probational—I am getting off the field of drugs, but not really——

Mr. KEATING. That is the point, it is the same thing, alcohol and barbiturates and Seconals and heroin and LSD. You have got the problem of the person. This will resolve the physiological problem of alcoholism, narcotics, and barbiturates.

Mr. SANDMAN. Is this addictive?

Dr. CASRIEL. No; not at all. It is not an alkaloid.

Mr. KEATING. How long does it take for an alcoholic, the man who has been drinking for years and there is no way for you to reach him, he still, I understand, has psychlogical problems, but how long does it take him to physiologically recover?

Dr. CASRIEL. From acute—5 minutes.

Mr. KEATING. So that you are talking about, in the case of methadone or heroin, it takes about a week or maybe I misunderstood.

Dr. ROSEN. Withdrawal from alcohol is about the same time, about 5 days in the chronic alcoholic to withdraw him.

Dr. CASRIEL. But the acute symptoms——

Mr. KEATING. But he needs about a week to destroy——

Dr. CASRIEL. The steroids.

Dr. ROSEN. Let's not go cutting down moneys for alcoholism. The thing is it is not a panacea that we can have peanuts on the bar and there will be no alcoholism, because the alcoholism is going to be there. You can have somebody withdraw and take this and go back to drinking for the same emotional reasons as beforehand.

Mr. KEATING. If this is as successful as indicated, you eliminate one of the obstacles of treatment.

Mr. ROSEN. That is the main impact.

Mr. KEATING. Which is the major thrust of what we are all talking about and driving at, which makes the psychological problem easier to cope with.

Dr. ROSEN. Right.

Mr. KEATING. Mr. Chairman, I find this extremely remarkable and very fascinating, and obviously it has a number of other possibilities.

You have been kind to take me out of order and Congressman Winn has allowed me to go out of order.

Mr. WINN. I have no questions. Go right ahead.

Chairman PEPPER. Go right ahead, Mr. Keating.

Mr. KEATING. I can just see at the misdemeanor level, as I indicated, that this destroys the whole concept under which we have been operating. We talk about putting in a whole detoxification center. Well, you wouldn't even need it at all, really.

Dr. CASRIEL. As I think I have mentioned in my paper that followed Dr. Revici's paper on this, it is going to revolutionize the problem of addiction: alcohol, narcotics, and barbiturates.

Mr. KEATING. How long has it been before the Food and Drug Administration?

Mr. RANGEL. About 2½ months. It was there before and rejected for additional tests. We had scheduled a meeting with Dr. Revici before the FDA. The FDA has not really rejected it in terms of saying that it doesn't do everything Dr. Revici claims it does, but in their opinion there are certain clinical tests that have not been made, and Dr. Revici was supposed to have come down.

This committee has had doctors available to go with him. We thought we would be able to come back with some lay knowledge of what the FDA was really demanding. Unfortunately, because of the sudden illness of Dr. Revici, this meeting has been postponed.

But I have talked with people in the White House that have been in touch with the FDA, as well as the FDA itself, and they have made it abundantly clear that we are not rejecting any of the testimony that we have heard today, but merely indicated that we have certain standards that have to be met. I think Mr. Perito will be able to report back soon.

Mr. KEATING. What limitations are there, at this stage, from the use of Perse by hospitals, physicians, and the fact that it has not been approved by the FDA?

Dr. CASRIEL. Well, right now it is only a research drug usable in the State of New York by experts.

Mr. KEATING. Could, for example, a physician in my district use it?

Dr. CASRIEL. What is your district?

Mr. KEATING. Cincinnati, Ohio.

Dr. CASRIEL. That is where I went to medical school.

Reverend MASSEY. Only in New York State may it be used.

Mr. RANGEL. Transportation could be arranged for him to come to New York.

Dr. CASRIEL. As soon as we get FDA approval you will be able to use this on a research basis throughout the country. That is what we have been waiting for and waiting for, and every time there is an automobile death, every time there is a death from addiction I feel there is something wrong with bureaucracy.

Mr. KEATING. We all know 50 percent of the deaths, as someone mentioned, automobiles, come from drivers under the influence. I am talking in terms of 20,000, 30,000 people a year. We are not going to have 100 percent. We are talking about a lot of people whose lives may very well have been saved.

Mr. STEIGER. Bill, would you yield on that?

What period of time are we talking about for the oral——

Dr. CASRIEL. About 15 minutes, 20 minutes; depends upon a person's capacity to absorb.

Mr. STEIGER. I can see just before closing time everybody have a Perse.

Dr. CASRIEL. Right, everybody sober up, party's over, sober up.

Mr. KEATING. I have no more questions.

Chairman PEPPER. Mr. Winn.

Mr. WINN. No questions, Mr. Chairman.

Chairman PEPPER. Mr. Blommer.

Mr. BLOMMER. One question, Dr. Casriel.

You said that you treated three people who had been maintained on methadone, and I am sure that you talked to them about their experiences on methadone.

Now, when they said, as I assume they said to the doctor that was maintaining them on methadone, "I feel normal," were they speaking the truth?

Dr. CASRIEL. They are lying out of their heads, for God's sake. They weren't just on methadone, they were taking everything they could get their hands on. They told the doctor this is good. They were taking cocaine, barbiturates, getting drunk, taking anything. It is ridiculous. They don't know the psychology of an addict. He will lie through his teeth. He will steal his mother's teeth, and you expect him to tell the person who gives him methadone, or if he is taking anything else, of course, he won't say that. He will say, This is a wonderful drug and I have been looking for a job, et cetera, et cetera, et cetera. You are dealing with a pathological infantile character disorder.

How can you treat them as if they are adult people, adult, responsible people? They are all liars, all liars.

Mr. BLOMMER. My next question was what you think the people on methadone maintenance think of the program. I think you have answered that.

Chairman PEPPER. Doctor, just one or two questions.

We had testimony before our committee from the commissioner of corrections of New York City. He testified that thousands of people who come into the correctional system with heroin addiction simply have to go through agonies of withdrawal, without any treatment at all, because they don't have any treatment.

Dr. CASRIEL. Mr. Pepper, let me answer that.

I was a court psychiatrist and I saw them kicking the Tombs, and I was a ward psychiatrist at Metropolitan Hospital and I saw them kick at Metropolitan Hospital, and I have also, of course, been in Synanon, Daytop, and I have seen them kick this. The same kid, with the same habit, with the same length of time, reacts completely different in the Tombs, in Metropolitan Hospital, and in Daytop.

In the Tombs he will figure the least he will get is to be known as a junky with a large habit. He gets status. The more he complains and climbs the walls, he figures maybe if he screams enough they will send him to the hospital and he will get some methadone.

In the methadone unit they yelled bloody murder and climbed the walls because they got methadone. The same kid, and I saw them, the same kid literally, the same kid in the jail with methadone and Daytop, the same kid would finally tell me what he was doing. He figured the more he screamed, the more drugs he would get, or at least have the reputation of a junky with a big habit.

In Daytop they have a cold, runny nose, upset, sick, in a day or two, and then get over it. It is not a physiological thing.

Now, methadone maintenance is another thing. That is a lot of dope and the kid you have to withdraw from the methadone maintenance can really get pretty damned sick.

Chairman PEPPER. This would be a simple and relatively inexpensive way of treating those with withdrawal symptoms?

Dr. CASRIEL. Yes; you just give them a shot or a pill.

Chairman PEPPER. Well, Doctor, I think all of us are excited about this testimony you have given today. We have heard about Dr. Revici's work and we certainly do hope, and I know my colleagues hope, it can be a satisfactory drug and come into general use.

It has been my belief for a long time that that is one of the reasons this committee committed itself to hold these hearings.

Dr. CASRIEL. If you can speed up this drug to public use you will save lives. Every day that is wasted is killing people, and costing billions of dollars.

I think, if I may suggest, if you can use your influence to speed up the investigational use of this drug so that it can get out on the market, I know it is going to work. I know it works.

Chairman PEPPER. Mr. Sandman, would you like to inquire?

Mr. SANDMAN. How many cases have you tried this on?

Dr. CASRIEL. About 100.

Mr. SANDMAN. I wasn't here when you apparently testified.

What were your results?

Dr. CASRIEL. They were detoxified.

Mr. SANDMAN. Detoxified. Does this satisfy their desire?

Dr. CASRIEL. Satisfies their desire.

Mr. SANDMAN. You can take a hardened heroin addict——

Dr. CASRIEL. I can take a person on methadone maintenance—to me that is the hardest—and get them off.

Mr. SANDMAN. Now, he has to continue taking this, he never really is cured?

Dr. CASRIEL. Oh, no; a week and you are finished. This isn't a maintenance drug.

Mr. SANDMAN. Oh, you only do this for 1 week?

Dr. CASRIEL. One week at the most.

Reverend MASSEY. May I also say here that some can take it for a week, some for just 2 to 3 days. If an individual is shooting 50 bags a day he may take it for 3 days only with approximately three or four injections per day.

Mr. SANDMAN. But he is going to go right back to heroin?

Reverend MASSEY. No; I beg your pardon.

Mr. SANDMAN. He is not?

Reverend MASSEY. Also, he takes oral medication in between the injections. He is given oral medication.

Mr. SANDMAN. This is injected?

Reverend MASSEY. This is injectable. I have a brother who was on heroin, shooting approximately 50, 60 bags a day. A year ago—no, it was March of 1970—he was admitted into Trafalgar Hospital, detoxified, received this injection for 3 days. The remainder of his stay in the hospital—he stayed 8 days—he received oral medication, and I must say he is back to the use of drugs but it is not because he stopped.

Mr. SANDMAN. This doesn't cure the habit?

Reverend MASSEY. This detoxifies him physically.

Mr. SANDMAN. It just detoxifies him?

Reverend MASSEY. Correct.

Mr. SANDMAN. I got it.

I have no more questions.

Chairman PEPPER. Well, thank you very much, Dr. Casriel, Dr. Rosen, and Reverend Massey. We have very much appreciated your testimony and we are obliged to you for coming here today and giving us this very exciting testimony. We appreciate it.

For the record, Dr. Rosen, please give us your name and address.

Dr. ROSEN. Walter Rosen, 102 East 116th Street, New York City.

Chairman PEPPER. And you are a medical doctor?

Dr. ROSEN. Yes, sir.

Chairman PEPPER. Under the laws of New York?

Dr. ROSEN. Yes, sir.

Mr. PEPPER. How long in practice?

Dr. ROSEN. Since 1949.

Chairman PEPPER. Since 1949.

Reverend Massey, your full name?

Reverend MASSEY. Rev. Raymond Massey; my address is 144 East 90th Street, Institute of Applied Biology, in New York City 10026.

Chairman PEPPER. You are a member of the clergy?

Reverend MASSEY. Yes; I am.

Chairman PEPPER. What is your church?

Reverend MASSEY. Bethel Baptist Church, Jamaica, Long Island.

Chairman PEPPER. You have been associated with Dr. Revici for about 17 months?

Reverend MASSEY. Correct.

Chairman PEPPER. Thank you very much.

(The material received for the record follows:)

[Exhibit No. 14(a)]

THE CASE AGAINST METHADONE

Daniel Casriel, M.D., past president, American Society of Psychoanalytic Physicians, and medical psychiatric superintendent, Daytop Village, Inc.

The current proposition before the city council to supply drug addicts with methadone is, in my opinion, malpractice. To substitute one narcotic for another is not the answer nor the solution to drug addiction. When a narcotic is made free and available by Government agencies, it can only increase and encourage the further use of drugs.

Is it planned to make methadone legal and keep heroin illegal? Is a person using heroin a criminal and an addict using methadone a patient? Is a person selling heroin a criminal pusher—a person selling methadone a businessman? Is a man selling scotch a criminal but a man selling bourbon a law-abiding citizen?

How about the pot (marihuana) smoker—should he continue to go to jail for possession while his cousin the junkie goes to work—as the proponents of methadone maintenance propose? The fact is that a large proportion of pot smokers are law abiding and functioning citizens.

What will the other 50,000 addicts in this country do when they hear the boys in New York are getting their stuff free and legal? New York will have 50,000 new citizens to add to our welfare rolls. What will we do with the deluge? Will they have to be a citizen of New York to obtain free or low-cost methadone? They will not have to be a citizen of New York to steal from the citizens of New York. What will prevent the have-nots from buying and stealing some methadone from the haves? Do the proponents of maintenance really believe that a new underworld market in methadone will not be established?

The millions of addictive prone—how many of these people will become addicts because another narcotic is legal or at least easy to obtain? Have we forgotten the reasons for the original narcotic laws? Are we prepared to treat 6–8 million addicts?

Proponents of methadone maintenance therapy say the glamour will be taken out of addiction when the addict drinks his opiate rather than injects it into his arm. First, addiction to the addict is as glamourous as terminal cancer. Those that need to inject something into their vein (very few for a symbolic need—they use a vein because it gives them the quickest and strongest kick) and will continue to inject something, and many would-be addicts who have fear of injection now would have a new source of oral narcotic to start them on the road to heroin.

In this country there are three groups—three philosophies—one might call them three armies, fighting the common enemy of drug addiction.

The first army, of course, are the traditionalists. I myself was once an adherent of this group. In 1962, the New York Tribune contained a quote relative to the treatment of the drug addict. It was:

"Put him away either in a hopsital or jails for the rest of his life—or give him all the heroin he wants."

I was the author of that statement. I had all but thrown up my hands in helplessness. After using the traditional approach in a great number of cases, I knew I had cured no one and that any help I had given was transitory, ineffectual, and not worth the time and the effort. The schools, the courts, and the hospitals had no better results. Doctors in private practice refused to treat a drug addict. No force, intimidation, jail terms—even the threat of death—had any impact on the addict. The traditionalists admitted failure, and just did all they could to keep the problem under control. But it does not stay under control. It became worse all the time in terms of numbers of addicts and the degree of chronicity and tenacity of their habit. The traditionalists were and are losing the battle.

Recently a second army has arisen. A new philosophy has re-emerged—on the basis of, "If we can't lick them, let's join them," we now have, "If we we can't cure them, let's try to control them. We'll stop them from stealing to get money for drugs. We'll give them all the drugs they need." These are the adherents of the methadone system. This was basically the philosophy of the "British System."

I personally feel that this approach is absolutely wrong not only philosophically, but also medically. As a scientist I can accept any program which has a research design and is limited in its scope, but I am utterly and completely opposed to the indiscriminate use of methadone as a treatment for drug addiction in the city. I feel we are opening Pandora's box. We shall develop not only a heroin underworld traffic, but a methadone underworld traffic. The British found they had a problem of illicit heroin traffic developed from supplies given to the addict legally, and the British have had, until now, only a very minor problem with what I call secondary addicts. Our problem in this country is entirely different, as a majority of our addicts are what I call primary addicts—that is, drug addiction is a way of life for them. They withdraw from all of life's constructive functionings and their entire lives are centered around the obtaining of narcotics—raising the "bread" (cash) and finding the "connection." They live to shoot dope.

Dole and Nyswander reported in 1965[1] on the results of their preliminary studies in the use of methadone to block heroin addiction. At that time much hope was placed in this method as a result of their findings. However, Dr. Victor H. Vogel, chairman of the Narcotic Addict Evaluation Authority of the State of California, wrote on September 3, 1965 to the Journal of the American Medical Association:

---

[1] Journal of the American Medical Association.

"The paper by Dole and Nyswander on the treatment of heroin addiction by methadone does not come up to expectations generated by prior publicity in the public press and two feature articles in the New Yorker.

"The authors seem to be unaware of the tragic consequences of the introduction of heroin as a cure for morphine addiction at the turn of the century and the later introduction of Demerol as a harmless narcotic. Although the authors state at the beginning of the paper that it is only a progress report, an unwarranted conclusion is made, 'Maintenance of patients with methadone is no more difficult than maintaining diabetics with oral hypoglycemic agents, and in most cases the patient should be able to live a normal life': The authors are silent on the problem of treating methadone addiction.

"Although 22 cases are presented as evidence of success of the treatment, two had been followed less than 1 month and 10 cases for less than 2 months: Perusal of the paper shows that four of the cases were still in the hospital, four others had used 'Unscheduled' narcotics, two others had been discharged after tolerance tests only, and one left the program against advice.

"A common pitfall for investigators studying new cures for narcotic addiction is the difficulty of determining the degree of addiction at the beginning of the experiment. Himmelsbach and others have shown that narcotic dependence can be determined only by objective observations during withdrawal, after which the subject may be restabilized and experimental testing with the new drug begin.

"The evidence presented in this paper that the substitution of the narcotic methadone for the narcotic heroin is superior to withdrawal from all narcotics, is not impressive. In spite of what the authors say, successful treatment by withdrawal is not rare, particularly over a period of less than 2 months which is the time reported by Dole and Nyswander in 10 of the 22 cases."

The following statements might be useful in counteracting some of the misleading reports that are becoming more numerous daily.

Victor H. Vogel, Harris Isbell and Kenneth W. Chapman, wrote in the Journal of the American Medical Association, December 4, 1948, in an article called The Present Status of Narcotic Addiction: "The total addiction liability to methadone is almost equal to that of morphine, although its physical liability is less. The euphoric effect of methadone on the addict (and undoubtedly in the addiction prone person) is equal to that of morphine, so that its habituation liability is high."

Harris Isbell wrote in his article "Methods and Results of Studying Experimental Human Addiction to the Newer Synthetic Analgesics," published in the annals of the New York Academy of Science, October 1, 1948: "The behavior of men addicted to methadone was similar to the behavior seen during morphine addiction. The patients ceased all productive activity, neglected their persons and their quarters, and spent most of their time in bed in a semi-somnolent state which they regarded as very pleasurable. Psychological changes seen during addiction to methadone were similar to those seen during morphine addiction. During addiction to methadone patients continually requested increases in dosage."

Harris Isbell, Abraham Wikler, Anna J. Eiseman, Mary Daingerfield and Karl Frank, in their article "Liability of Addiction to 6-dimethylamino-4-diphenyl-3-heptanone (methadone amidone or 10820) in Man: Experimental Addiction to methadone" published in the Archives of Internal Medicine, October 1948: "When the dosage was increased to 40–60 mg. daily in the second week of addiction, definite evidence of sedation appeared after the third or fourth injection, and the men began to express satisfatcion with the effects of the drug. Their behavior became strikingly similar to that seen during addiction to morphine. . . . The degree of somnolence and lack of activity was greater than that seen during morphine addiction. The men complained about this, and said that while addicted to methadone they could do little but stay in bed. They stated that methadone lacked a peculiar quality possessed by morphine, which was termed 'drive' and which they described as a sense of ambition to work and play games. When it was pointed out that their behavior while addicted to morphine was inconsistent with these observations, the patients were puzzled and stated that when they were receiving morphine at least they thought they were ambitious, but when they were taking methadone they knew that they were lazy."

Last December Dole and Nyswander with Alan Warner reported on further, and more extensive, studies (750 cases) in the Journal of the American Medical

Association, December 16, 1968, Vol. 206, No. 12, and it is presumably on the basis of these studies that New York City has established a pilot program for the treatment of addicts by this method.

However, Dole and Nyswander themselves state in their report:

"We have not, however, considered it desirable to withdraw medication from patients who are to remain in the program, since those who have been discharged have experienced a return of narcotic drug hunger after removal of the blockade, and most of them have promptly reverted to the use of heroin. It is possible that a very gradual removal of methadone from patients with several years of stable living in phase 3 might succeed, but this procedure has not yet been adequately tested."

In the same report, Dole and Nyswander also write:

"Since blockade with methadone makes heroin relatively ineffective, a patient cannot use heroin for the usual euphoria. * * * He can, however, remain drug-oriented in his thinking, and be tempted to return to heroin."

* * * * * * *

"The greatest surprise has been the high rate of social productivity, as defined by stable employment and responsible behavior. This, of course, cannot be attributed to the medication, which merely blocks drug hunger and narcotic drug effects. The fact that the majority of patients have become productive citizens testified to the devotion of the staff of the methadone program—physicians, nurses, older patients, counselors and social workers."

In the Progress Report of Evaluation of Methadone Maintenance Treatment Program as of March 31, 1968 by the Methadone Maintenance Evaluation Committee, Chairman Henry Brill, published in the same issue of the Journal of the American Medical Association the authors mention: "None of the patients who have continued under care has become readdicted to heroin, although 11 percent demonstrate repeated use of amphetamines or barbiturates, and about 5 percent have chronic problems with alcohol."

Now I come to another point I should like to make against methadone maintenance therapy, which is an ethical, or perhaps I should say philosophical one. Can we, as physicians, in all good conscience, prescribe medication which is not curative, which may prove to be very destructive, when there is a growing school of thought, backed by ever-increasing proof, that there is a cure for the disease? Do we not, as physicians, owe the patient the opportunity of at least having a chance of being cured, before we condemn the individual to a fate, at best, of a zombied state of existence, and at worst to a reinforced highway to destruction and death? Should a physician prescribe aspirin for pneumonia and avoid the use of penicillin? Methadone at best treats only the symptom and not the disease. At worst, methodone reinforces the disease. Methadone also does something else. It reduces the motivation to get well. "Why try and get well," says the addict. "Why suffer the stresses and strains of what amounts to psychological rebirth in a therapeutic community such as Daytop? Why learn to function and grow up when I can get all the methadone I need to avoid all the pain of addiction, and I can spend my time raising money for a little heroin that will give me pleasure. Why pay for dinner when I can get a free lunch?"

Methadone does something else too. It re-inforces the addict's sense of futility and hopelessness. He is now able to say to himself "you see? There is no cure * * * so why try? Even the medical profession has admitted there is no cure. My friends in the street, my fellow junkies are right. Once a junkie always a junkie."

It is planned to make methadone legal and keep heroin illegal. Is a person using heroin a criminal and an addict using methadone a patient? Is a junkie selling some of his heroin a criminal pusher—a junkie selling (or trading) some of his methadone a businessman? Is a person drinking or selling scotch a criminal but a person drinking or selling bourbon a law abiding citizen? Even during the illogical years of prohibition we did not become that illogical.

And how about the "pot" (marijuana) smoker—should he continue to go to jail for possession while his cousin the junkie goes to a hospital—or (more ridiculously) as the proponents of methadone maintenance suggest—goes to work? A large proportion of "pot" smokers are otherwise law abiding and functioning.

Also, what will the other 50,000 addicts in this country do when they hear the "boys" in New York are getting their "stuff" free and legal? What will prevent them from coming to New York to get their "free lunch?" What will we do with the deluge? Will they have to be a citizen of New York to obtain free or low cost methadone? They will not have to be a citizen of New York to steal from the citizens of New York. What will prevent the have nots from buying and stealing some methadone from the haves? Do the proponents of maintenance really believe that a new underworld market in methadone will not be established?

How about the millions of addictive prone—how many of these people will become addicts because it is legal or at least so much easier to obtain? Have we forgotten the reasons for the original narcotic laws? Are we prepared to treat 6–8 million addicts in addition to the 6–8 million alcoholics we already have?

Some proponents of methadone maintenance therapy state the glamour will be taken out of addiction when the addict drinks his opiate rather than injects it into his arm. First, addiction to the addict is about as glamorous as terminal cancer. Secondly, those that need to inject something into their vein (very few have a symbolic need * * * they use a vein because it gives them the quickest-strongest kick) will continue to inject something. And thirdly, many would-be addicts who have a fear of injection, now could have an additional large steady source of oral supply to start them on their road to heroin.

FINANCIAL

The proponents of methadone maintenance introduce a point that appeals to the taxpayer, i.e., methadone is the cheapest treatment, about 13 cents a day. A closer look at the figures yields these facts:

$85 a day for early phase inpatient care (6 weeks approximately).

$5 a day for outpatient service.

Against the normal term of 18 months for rehabilitation in the therapeutic communities, such as Daytop Village, the comparison cost of methadone care is higher:

Methadone (18 months inpatient (6 weeks) and outpatient) (16½ months), $5,887.

Therapeutic community (e.g., Daytop) (18 months), $5,748.

And when you consider the fact that after the 18 months, the therapeutic community (Daytop) produces a drug-free, responsive recovered individual while methadone maintenance produces a dependent addicted individual, the comparison becomes clearer. Over a period of 10 years the Daytop graduate will have 8½ years of autonomous, productive (tax-paying) performance with additional cost to Government while methadone maintenance will produced a full 10 years of drug dependence at a total 10 years of $25,470 per individual.

And the final point against methadone. Diseases, like this are unethical and immoral. They do not play the game according to the conditions set forth. When will we learn that you cannot do business with disease? If we do not destroy disease, disease will destroy us. There is no compromise. There can be no maintenance.

And now for the third army in the field fighting the enemy addictive disease, a growing army in which I am proud to be among the leaders. An army composed not only of professionals, but of doctors, psychologists, sociologists, social workers, clerical workers, enforcement officers, judges, officials from the Department of the Treasury, customs officials, but now we have in our ranks the rehabilitated victims that were in the enemy organization. We have a new breed of men, the ex-addict, who by his training has been a paraprofessional, ready, willing, and able to assist us and one other in depleting the enemy's forces: addicts, * * * bound in slavery to their addiction, and in destroying once and for all the enemy * * * sometimes called addiction, sometimes called criminality, sometimes called pothead, sometimes called alcoholism, sometimes called homosexuality, sometimes called school dropouts, sometimes called the inadequate personality, * * * always called the character disorder.

For over 7 years I have observed and taken part in the fight against addiction by a new tactic, a new philosophy, which on one hand is very difficult, yet on the other hand whose tactics are so obvious as to sometimes be oversimplified and called common sense. After working intensively learning the process of treatment of the drug addict specifically and the character disorder in general, I was finally able to trace it back and evolve a psychodynamic theory which to me adequately explains why the process works. This theory is now being put into practice by Daytop and some other therapeutic communities where ex-addicts work together to help themselves and each other grow into mature, responsible human beings. It is a process which involves 18 months of intense confrontation and challenge to growth within the addict/ex-addict peer group. Hard work is the name of this game of recovery. There is no magic in winning back human lives. To attest to its success, we have an ever-increasing army of Daytop residents and graduates who today bear witness to the fact that the addict can recover his life—that man is not fragile and need not be sedated—that he can be challenged to grow!

To effectuate treatment one must first remove the shell of heroin and prevent the individual from acquiring or running into any other kind of shell. And then, once exposed to the light of reality, without his fortress of the shell of withdrawal, he is in a position to be taught how to grow up emotionally, socially, culturally, morally, ethically, vocationally, and educationally. This is no small undertaking, but nothing less will suffice * * *and this is what is done at Daytop.

Which brings me to the treatment techniques. Empirical observation and research at Daytop has found that there are only two prescriptions and two prescriptions needed for complete treatment. They are simple. The prescriptions are: 1) No physical violence, 2) No narcotics or other chemicals, and by inference no other shells under which to hide. By these two simple prohibitions we have successfully eliminated two of the three ways an individual copes with pain or danger. There is only one reaction open to him, only one method which he can utilize, and that is by reacting to real and imagined stresses and strains, real and imagined pains and dangers . . . by fear. Motivated by fear he can do one of two things. He can stay and attempt to cope with his fears, or he can run out of the door, sometimes never to return, frequently to return again at some later date. We have found that at least 80 percent of those who enter Daytop will sooner or later remain to get well. We do not know what happens to the other 20 percent who will never return. Perhaps they are dead, perhaps they are in jails, perhaps they are in hospitals, perhaps they are still attempting to be drug addicts, perhaps they have stopped taking drugs, perhaps they are on methadone.

Daytop now has three facilities housing approximately 300 members, and a rehabilitation rate of 92 percent (103 graduates). If allowed to grow it could make a real impact not only on the drug addiction problem in the city, but also on crime, delinquency, and, not least, on our tax dollars. If given support, it could save the people of New York hundreds of millions of dollars now stolen by addicts or wasted by ineffectual treatment processes.

Efren Ramirez, in his article, "City and Community Resources for Drug Addiction," published in New York Medicine, Col. XXIV, No. 9, Sept. 1968, writes:

"Addicts . . . almost without exception, show clear and definite manifestations of a wide variety of character malformation."

"They are poorly motivated toward long-range treatment and rehabilitation . . . There are few professionals who can motivate addicts . . . By and large the way to break through the apathy and lack of committment in the addict is to use the simple expedient of employing a trained, rehabilitated ex-addict, who can show by his own example, the feasibility of rehabilitation."

"For the serious addict rehabilitation requires a stay of some length in a therapeutic community . . ."

"Addiction is one of the outstanding problems of the city of New York. And, as such, it must be dealth with in an unusual, united, really coordinated way."

And I think I can do not better to close these remarks by quoting from the article Medical Aspects of Drug Abuse by Michael M. Baden, in the same issue of New York Medicine:

"There is professional sterility when a physician marvels at a cirrhotic liver and does not appreciate or concern himself with the severe psychiatric and social factors that led to it. Even if the alcohol consumption were stopped, as with Antabuse, the underlying primary psychiatric pathology must still be treated if we are to cure the person and not merely the symptom. So it is with drug addiction: removing the needle does not in itself even begin to deal with the causes that lead to the use of the needle . . . drug abuse is not a physical disease but a psychiatric one and must be treated as such if it is to be cured."

[Exhibit No. 14(b)]

CASRIEL INSTITUTE OF GROUP DYNAMICS, NEW YORK, N.Y.

I am honored to be the first discussant of this historic paper presented by Dr. Revici. His paper has opened a new dawn on the treatment of addiction. Because of the great contribution of his knowledge of cellular physiology and pathology and his resultant pharacological treatment of disease, I am sure medical history will honor him as one of the greatest physicians of this century. I am proud to be able to sit at his side today.

When I was first introduced to Dr. Revici, some 15 months ago, to observe the clinical reaction of several obvious drug addict patients to an injection of his drug, I felt highly suspicious as to the nature of the drug. The individuals reacted as if they had just received a "Fix." In 15 months I have given this drug to over 100 drug addicts. Though their clinical reaction remained the same as I first observed, after a week's utilization of Perse, the individual is totally free of all narcotic needs and of Perse too.

Except for four cases early in my use of Perse, there have been no side effects. These four early cases reacted with a toxic "Grippe Like" fever which lasted about 24 hours. Dr. Revici stated that it was the sulfur in the particular preparation that caused this effect. After he lowered the sulfur concentration, no other generalized side effects attributed to this drug was ever observed. Clinically it seems to be perfectly safe. On one occasion, I personally took two pills, to evaluate its effectiveness in preventing drunkeness due to alcohol. Two tablets allowed me to drink 8 ounces of 86 percent J & B Scotch without any side effects as to dysarthria, dizzyness, drowsiness, sleepiness, euphoria, or any of the side effects I usually obtain from more than 2 ounces of alcohol. The clinical reaction of Perse is exactly as Dr. Revici describes.

I have had the occasion to detoxifize three people who were on methadone maintenance; one using 140 mg., one using 150 mg., and one using 240 mg. daily. In all cases, the people were detoxified successfully and effectively. All of the residents given Perse in my therapeutic community, called AREBA, were able to maintain themselves and remain in the community, needing only additional rest. The clinical effectiveness I have observed from Perse is exactly that which Dr. Revici described in his 1,000 cases. Rather than to review the clinical reactions which Dr. Revici has already adequately reviewed, and for which he has much more documentation than I, I shall formulate some of the changes that I anticipate will take effect in the wake of the utilization of Perse. The use of Perse will force a total review of the entire abuse and treatment not only of narcotics, but also of alcohol and barbituate addiction. Perse will eliminate the addictive probabilities of all these drugs, as well as remove the effect of the drug if Perse is taken. However it will not remove the psychological dependence, only the physiological addiction.

1. Methadone is contra-indicated and will stop being given for both maintenance and withdrawal.

2. The simple, inexpensive (fraction of a cent) diagnostic test for immediate detection of Alkaloids in the urine also developed by Dr. Revici means that though individuals may still take drugs, they will not become addicted. At the first sign (i.e.: positive urine test) of the use of any alcohol, narcotic, or barbituate; Perse could be given, eliminating the addictive cycle.

3. The restructuring of most 24-hour therapeutic communities into large day centers. This will reduce the cost by almost half. The average cost of the therapeutic community like Daytop Village is $11 a day. Methadone maintenance in the Dole Set-up costs $5.50 a day. A day center such as was structured by myself in Hialeah, Fa., in Operation Self Help, operating 10 a.m. to 10 p.m., 7 days a week should cost closer to the $5.50 a day per person level. Unlike methadone maintenance which could last forever, the average length of a time of treatment in day center will probably be in the area of a year. With the new advances in the psychological treatment of the addict, the actual time in a day center could be shortened.

4. Since the person is not addicted, he will be much more readily treatable, psychologically.

5. Since hospitalization is not necessary (i.e.: the period of time normally needed for detoxification of addiction) pyschological treatment can be prescribed and instituted immediately at the clinic where the test takes place. There will

be no loss of applicants due to the need to wait for the end of the detoxification period.

6. Since people need not become addicted, they are not necessarily weak or need additional hospitalization for complication due to addiction.

7. Since they do not become addicted, crimes committed to obtain money for drugs will be markedly reduced. Insurance costs will come down, courts and police will have a markedly lesser business. Jails will not be as crowded. The savings could be passed on to the taxpayer.

8. Because of no addiction, many more addicts can be treated on an outpatient basis, with a great reduction of costs. Hospital beds for addiction can be phased out.

9. Perse is not only antiaddictive, it tends to remove the psychological effects of nonspecific "tissue memory"—spontaneous physiological readdiction will be greatly reduced.

10. Perse will remove acute intoxication. One or two pills and 15 minutes will remove drivers from "driving under the influence of"—preventing half of the auto fatalities, lowering insurance costs, etc.

11. Perse is life saving if given in time, no one need die of an overdose of narcotics or barbituates.

12. Perse cost is extremely low. It can be reproduced relatively easily and distributed quickly. Perhaps the current addiction programs already set up can be the institutions which will distribute the Perse, take the urine tests, and institute the specialized psycotherapy.

13. Money saved could be used to retool the psycotherapy used for the treatment of severe character disorders. This is essential.

The criticism I have heard from professionals in discussing Dr. Revici's paper, is that he has no scientific reference to the literature in his paper. I refer them to Dr. Revici's erudite, professional textbook. Christopher Columbus could not have given a cross-reference on previous work of the New World he discovered. Dr. Revici has opened the way for the period of new results in the field of addiction as well as other fields. Dr. Revici should not and cannot be judged as one may with classical schools of researchers. Perse is revolutionary. It is but one of many chemicals to spring from the "Pen" of a revolutionary researcher. Dr. Revici, relying on his own knowledge of biochemistry, physiology, histology, pharmacology, as well as clinical medicine theorized the problem of addiction. The cause of addiction. From his theory of cause and effect, he formulated his chemical treatment, all on pencil and paper. He took his theories to his animal laboratories and then finally to his human clinical laboratory, his hospital, Trafalga Hospital. What more is there to question? Thousands of animals and over a thousand patients have taken Perse without ill effects. So have I. Treatment is not chronic, only for a week or less, therefore, no serious problem of chronic accumulation of drugs, being build up in the body or other pathological interreaction being built up in the body. The fact that Dr. Revici could theorize by pen, a treatment approach which he could successfully then apply clinically, awes me.

On the contrary the headlong fatal social plunge into methedone maintenance is based on a nonvalidated hypothesis, not biochemically validated, not physiologically validated, not pharmacologically validated and without even a scientific theory of how methodone "blockades the effect of Heroin" only a clinical hypothesis. Dr. Revici's theory, of course does explain this phenomenon. It is not at all a "blockading effect" of methedone on heroin—but rather an exhaustion of the bodies defensive reaction to the overwhelming dosages of methedone.

As an expert in the clinical treatment of addiction, I am totally convinced as to the merit of Perse. Dr. Revici you are a blessing to all of humanity, I salute you.

RESEARCH IN DRUG ADDICTION

(By Em. Revici, M.D.)

In the past years the tremendous growth in the number of people addicted to drugs, has made of addiction a main national problem. The limited ability to cope with the first basic aspect of the problem, the medical one, has consequently limited the efficiency of the psychological and social approaches. This explains why the problem of addiction is still practically uncontrolled. The fact that no real progress has been made in the medical control of addiction appears to result from the insufficient understanding of basic processes involved in addiction and especially in the withdrawal syndrome.

The study of the pathogenic aspect of addiction and of the withdrawal syndrome from a new angle has led us to certain conclusions concerning the nature of the processes involved. As corrolary, a new approach aimed at controlling addiction itself, without subjecting the person to the distressing withdrawal syndrome, has been developed. It has resulted in an effective short-term therapy, simple to administer, nontoxic, and inexpensive.

THEORETICAL CONSIDERATION

In the study of addiction and of the withdrawal syndrome we have applied our previous research concerning the mechanism involved in the pathogenesis of abnormal conditions in general, and of the intrinsic role played by lipids in these apthogeneses. In this research we have shown that symptoms, clinical and analytical signs of any abnormal condition can be integrated into one of three basic biological offbalances. Each one is characterized by its proper pathogenic metabolic processes, clinical manisfestations and analytical changes. In one of these offbalances we found that the metabolic processes have a prevalent anoxybiotic character. The metabolism of glucose, limited to the fermentative phase, leads to the appearance of acid substances, mainly lactic acid. The resulting local acidosis is one of the main characters of this offbalance. It is the further utilization of excess hydrogen liberated in these processes that gives the occurring metabolism an anabolic character. In the second offbalance the abnormal processes concern mainly the sodium chloride metabolism. The chloride ions of sodium chloride are irreversibly fixed, while sodium ions which remain free, bind carbonic ions. This results in the appearance of alkaline substances. A local alkalosis characterizes this offbalance. The occurring dyschlorobiotic offbalance has a catabolic character. In the third offbalance, the dysoxybiotic, the abnormal metabolism leads to an intensive fixation of oxygen, with the appearance of peroxides.

The study of these three offbalances has also furnished characteristic clinical and analytical data. This permits not only to define but also to recognize the offbalance present. The study of the relationship between these offbalances has shown fundamental antagonistic characters between them; that is, between the biological processes involved, and the resulting clinical manifestations and analytical changes.

Further study of these offbalances has shown the importance of the level of the organization where the abnormal processes are taking place. Clinical manifestations and analytical data were seen to differ widely if a subnuclear, cellular, tissue, organic or systemic level of the body organization is affected. When a condition is studied, this organizational aspect has to be considered.

Moreover, these offbalances were connected with the pathogenic intervention of lipids. In the anoxybiotic offbalance, a predominance of lipids with positive polar groups, mainly sterols, was found.

The dyschlorobiotic offbalance was seen to result from the intervention of a specific group of lipids with negative polar groups. These are separated as "abnormal" fatty acids; namely, those having trienic conjugated double bond formations in their molecules. The irreversible fixation of chloride ions, which characterizes this offbalance takes place at the conjugated double bonds of these fatty acids.

In the dysoxybiotic offbalance, free unsaturated fatty acids with nonconjugated double bonds were seen to intervene. The physicochemical antagonism was seen to exist between the respective lipids which intervene in the pathogenesis of the offbalances. It could be related to the clinical and pathogenic antagonisms seen between the offbalances, as well as between the processes involved and the resulting manifestations

Starting from this point, the pharmacological aspect of lipids and other agents was investigated. Using each one of these three groups of lipids, it was possible to induce the respective offbalance. Various other agents were studied for their relationship to the lipids and their capacity to induce an offbalance. Their specific as well as their nonspecific actions could be integrated in the defined offbalances. This explains many of the pharmacodynamic properties of these agents. Based on the offbalances these agents induce they can be separated into three groups which manifest the antagonism between the offbalances. Their general character to induce an anoxybiotic, dysoxybiotic or dyschlorobiotic offbalance, is associated to a specific capacity to act mainly at a certain level of the organization.

The therapeutic approach was thus developed by relating these basic concepts of offbalances with the pathogenesis of the different conditions and the pharmacopdynamy of different agents. In this guided therapy the nature of the agents and their doses are determined by the offbalance present in the condition to be treated. This is revealed by the clinical and analytical data obtained.

In practice, analysis of a condition under this specific aspect permits to recognize which offbalance is present and which level is affected. Consequently, it suggests which agent has to be used in order to corret the condition. The clinical and analytical changes induced by these agents are indicative of the necessary changes in dosage.

ADDICTION AND WITHDRAWAL SYNDROMES

It is from this specific point of view that we have approached the problem of drug addiction and withdrawal syndrome. From the interpretation of the analytical data and clinical manifestations it appears that the addiction itself corresponds to an anoxybiotic type of offbalance. This offbalance was seen to be induced in part directly by addicting drugs.

When administered experimentally in animals, addicting drugs were seen to induce an anoxybiotic offbalance. For instance, rats with standard wound made on their back, were given drugs of the narcotic group. They induced changes toward more acid values in the pH of the crust of the wound measured on the second day. This corresponds to an anoxybiotic offbalance.

A similar anoxybiotic offbalance was seen to result also from another mechanism. When an addicting drug is introduced in the body it acts as an antigen and the body tries to defend itself against it, as it does against any antigen. However, in the specific case of the addicting drugs, the body appears unable to produce the entire progressive series of defense substances, up to the specific globulins which would fully neutralize the antigen. Consequently the body's response remains at a lower step of this defense mechanism, with a low degree of specificity. This corresponds to release of lipids with a positive polar group. As this defense is qualitatively insufficient the body produces an excess of these defense substances. Their lipid nature with positive polar groups induces an anoxybiotic offbalance. Addiction, therefore, corresponds to an anabolic anoxybiotic offbalance which is induced directly by the addicting drug, and mainly by the excessive production of these low specific defense lipidic substances.

In general the organism attempts to correct the abnormal situation created by the presence of an offbalance. This is attempted by the intervention of processes corresponding to an opposite offbalance. For the anoxybiotic offbalance these "correcting" processes are mainly brought about by the appearance of dyschlorobiotic processes, through the intervention of conjugated fatty acids. This dyschlorobiosis, which in the case of drug addiction occurs mainly at the systemic level of the body, is recognized through the appearance of a systemic alkalosis. We have shown that the main analytical change which corresponds to the withdrawal syndrome is the appearance of alkaline urines, resulting from the systemic alkalosis. Manifestations such as abdominal cramps, diarrhea, vomiting, lacrimation and muscular pains appear to result mostly directly from the intensive dyschlorobiotic offbalance with systemic alkalosis. The addict may control this noxious dyschlorobiotic offbalance, by intake of an addicting drug. By inducing anoxybiotic changes the addicting drug acts directly upon the antagonistic dyschlorobiotic offbalance present in the withdrawal condition. When a systemic acidosis replaces the previous alkalosis, the dyschlorobiotic offbalance is temporarily controlled. Urines then change from alkaline to acid. However, as a consequence of the repeated intake of drugs, the amount of defense anoxybiotic substances, as well as the intensity of correcting dyschlorobiotic processes, is progressively increased. This results in an increasing need, an urge, for more addicting drugs. Withdrawal of the addicting drug leaves the body of the addict under the full influence of the progressively more intensive noxious correcting processes. The dyschlorobiotic offbalance which results, with its intensive alkalosis and the withdrawal symptoms which it induces, is thus progressively increased.

It is this role of the intervention of "correcting" process in the withdrawal condition which explains why all withdrawal syndromes are more intensive for the first 3 to 4 days after the discontinuance of the drug, and why they decrease in intensity in the following days. This is due to the fact that although noxious, the correcting processes acting upon the anoxybiotic offbalance of the addiction itself, succeeds to reduce its intensity with time. As a corrolary, the correcting processes also decrease.

THERAPEUTIC ATTEMPTS

These considerations concerning the pathogenesis of addiction and of the withdrawal syndrome led us to a therapeutic approach. As mentioned above, an offbalance can be induced by administration of the lipids responsible for the offbalance. This is also obtained with synthetic agents which have the same basic lipoidic-physico-chemical characters.

Our studies have shown that each offbalance is opposite to the two other offbalances. Likewise, when one offbalance is induced it will control any one of two others. An induced dysoxybiosis may thus act against an anoxybiosis as well as upon a dyschlorobiosis. These basic considerations were used in the search for a guided therapy for drug addiction, since the addiction itself is an anoxybiosis and the withdrawal syndrome corresponds to a dyschlorobiosis. Theoretically, both should be controlled by agents able to induce a dysoxybiosis. Consequently in the therapeutic attempts we used agents which we knew from previous studies to be able of inducing a dysoxybiotic offbalance.

We have found these properties in the members of the sixth series of the periodic elements; that is, for oxygen, sulfur, selenium and tellurium. Administration of agents able to furnish oxygen in a highly reactive form temporarily influenced the withdrawal symptoms, but were unable to control addiction itself. This led us to use the second member of the series: sulfur. Inorganic bivalent sulfur compounds as well as magnesium and ammonium thiosulfates were used. We discontinued their use, for, despite effectiveness, we could not administer sufficient amounts to fully control the condition. However the clinical results obtained with these agents showed that we were on the right path. Consequently, we used bivalent negative sulfur but as organic lipidic compounds. They were mainly hydropersulfides and persulfides of unsaturated fatty acids. These compounds, although active, were however seen still not sufficiently effective to control withdrawal symptoms such as muscular cramps and vomiting. This led us to consider selenium, the third member of the series. In view of the high toxicity of most of the selenium compounds this became the main problem in therapeutic use. Previous experience with selenium preparations has shown that active selenium preparations with a very low toxicity could be obtained. These are compounds of bivalent negative selenium, with lipidic properties. We selected an organic lipidic compound of bivalent negative selenium, with the selenium bound as perselenides to unsaturated fatty acids.

In experimental studies in animals this preparation induced a dysoxybiotic offbalance. It is this strong activity which seems to induce dehydrogenation which in turn changes sterols into inactive substances such as Diel's hydrocarbon, (the 3 methyl, 1, 2 cyclopentanophenanthrene). By inactivating the sterols they intervene in the pathogenesis of the anoxybiotic offbalance.

The same processes act upon the abnormal fatty acids with conjugated double bonds, leading to their inactivation. This influences the dyschlorobiotic offbalance. We have been using these preparations in order to act upon the two offbalances present in drug addiction and in withdrawal symptoms. These preparations are used as oily injectables and orally. The clinical results obtained have confirmed their therapeutical value.

The important role played by the systemic alkalosis in withdrawal symptoms has led us to the use as adjuvants which have a strongly acidifying and oxidizing action. Hydrochloric acid and to a lesser extent its ammonium salt, effectively act upon the syndrome. A preparation containing acidifying and oxidizing agents is used as "adjuvant." This preparation for control of the withdrawal syndrome is administered orally.

TOXICITY

Toxicity studies in animals have shown that the organic lipidic selenium preparations we use have an extremely low toxicity. In order to determine in acute toxicity the LD50 in mice and rats, we used concentrated solutions of the preparation having more than 10 times the content in selenium than the preparations used in humans. In intraperitoneal and subcutaneous injections, doses up to 2 mg. selenium per 100 g. of animal were tolerated without ill effects. The LD50 for mice for intraperitoneal injection was 40 mg. Se/Kg, and for rats, 53 mg. Se/Kg. The LD50 for subcutaneous injections are 60 mg. Se/Kg in mice, and 72 mg. Se/Kg in rats. In a 60 Kg man this would correspond to 1,000 ml. injected all at once. The usual therapeutic dose for humans is a maximum of 50 ml./day for 2 days and 20 ml. for the 3d day—This is a total of 120 ml. for 3 days of treatment. Therefore, the safety index for the drug is sufficiently high. There is a very low toxicity for subacute administrations. The only limitation is the amount of oily material to be injected. Infections of 0.05 mg. Se per 100 g. mice and rats daily, 5 days a week, for 6 weeks, was seen to be without ill effects. Similar doses injected in dogs for 6 weeks were also seen to be well tolerated.

In chronic toxicity studies, doses for mice of 0.1 mg. Se per 100 g. body weight, were injected for 3 months, without ill effects. The animals were not losing weight and behaved normally. Pathological studies showed no lesions in any of the organs. Administered to pregnant mice in doses of 10 mg. Se/per mouse, for 3 consecutive days, the preparation did not interfere with continuation of the pregnancy, nor with the condition of the offsprings. Administered to mating female and male mice, no teratogenic effects were seen.

The same lack of toxic effects was observed when preparations containing 35 mg. Se per ml. were administered to mice and rats through a catheter introduced directly into the stomach. Administered orally to weanlings, it did not interfere with normal development.

There were no changes in blood (CBC, hematocrit, electrolytes, enzymes—GOT, GPT, LDH—albumin, globulin, CO_2 combining power, thymol turbidity, cholesterol) and urine analyses (glucose, albumin, acetone, blood, pH, surface tension, chlorides, sediments) of experimental animals (mice, rats, guinea pigs, dogs, and rabbits) kept on selenium preparations. There were no abnormalities either in the gross and microscopic examination of the organs of animals sacrificed in acute, subacute, and chronic toxicity studies.

In humans preparations containing up to 10 mg of selenium per ml have been well tolerated without any local or systemic reactions in repeated I.M. injections of 10 ml. In some subjects in concentrations at or above 10 mg of selenium per ml the compound tended to induce a local reaction at the site of the injection, which was still stronger with repetition of the injections. We are using in preference preparations having up to 10 mg selenium per mil. They were well tolerated locally. Capsules for oral administration containing up to 35 mg of selenium each were also seen to be well tolerated in doses up to 10 a day.

We have used the same preparations in humans for other conditions and have administered them continuously for several months, without producing any toxic effects. Blood and urine analyses (the same as those mentioned for animal studies) as well as clinical data have shown no toxic changes.

From these studies we have concluded that the selenium preparations we are using are safe in doses much higher than those necessary to induce therapeutic effects.

Acidifying and oxidizing adjuvants, pharmaceutically accepted, which act upon withdrawal manifestations were added to the treatment with selenium. Their concomitant administration with selenium preparations did not influence the very low toxicity of both preparations.

TREATMENT

The selenium preparation containing 0.35 mg Se per ml is administered in intramuscular injections in doses from 5–10 ml. These injections are repeated four times in the first 24 hours, two or three times for the 2d day, and one or two times for the 3d day. Additional injections are given if withdrawal symptoms are still present. Not more than six injections in 24 hours are given. From the adjuvant acidifying solution, doses of one ounce are added as often as any withdrawal symptoms appear without other limitation. After the 3d day of treatment with selenium the subject continues only on the adjuvant solution. He may receive however, additional injections of the selenium preparation, only if the withdrawal symptoms appear and are not fully controlled by the adjuvant solution.

RESULTS

Studies concerning the pathogenesis of addiction and withdrawal syndrome and of the different therapeutic attempts were made in over 1,000 patients. They were young and old addicts, ranging from 14 to 48 years of age. Most were addicted to heroin and cocaine, a few to morphine and barbiturates. Some were newly started on the habit, while others were using the drug for years, some even for more than 20 years.

Almost all patients when submitted to adequate treatment responded with the same promptness. Administration of selenium preparations by injection to an addict is generally followed within minutes by a favorable subjective change. Most of the subjects use the same terms to describe the sensation they feel. They say: "I am normal" to indicate that the effect is fundamentally different from that obtained with the addicting drug. And this sensation persists usually from 2 to 12 hours. Their manifestation of an immediate loss of the urge, namely the need for the addicting drug is a very important effect. Concomitantly, the patient is started on the adjuvant acidifying solution, which is repeated as often as any symptom of withdrawal appears. With these medications (the selenium preparation and the adjuvant) addiction and withdrawal symptoms are controlled without being replaced by euphoria. There is no sensation of being "high" like that induced by the addicting drug, but rather an old sensation of feeling "normal."

With the treatment used as indicated above, most of the patients remain free of symptoms during and after the treatment.

Against insomnia we give barbiturates only if the usual doses of chloral hydrate appear insufficient: and this only for the first days of treatment.

Although there is no pain or any local or general reaction after the injections, many patients even after first few injections indicate the desire to discontinue these injections. They say: "I do not need any injections anymore, I have no urge or any trouble, I am normal now." We then continue the treatment with the adjuvant solution orally, recurring to injections only if the withdrawal symptoms are not fully controlled by this oral medication.

In a variant of the treatment, the injections of selenium are replaced by the oral administration of the oily concentrated solution of the same preparations with capsules containing up to 35 mg. Se. They are administered together with the adjuvant solution, and in some cases the clinical results are similar to those obtained with the injections.

In order to evaluate objectively the effects of the different medications upon withdrawal symptoms we have used a quantitation of the syndrome according to the method of Himmelsbach, which we have expanded by adding other symptoms and signs. Each of the withdrawal symptoms or signs such as vomiting, diarrhea, lacrimation etc., are given a numerical value. This evaluation of the condition is made either once or several times a day, and at the end of each observation the points obtained are added up. The curves drawn represent the course of withdrawal. For untreated subjects the curves have a steep rising abruptly and remaining elevated for a number of days. For patients receiving the treatment, the curves barely rise and remain very low, for duration of the treatment and thereafter.

CONTROLS

In order to assess the real effectiveness of this treatment, we have carried out control studies. Some patients were given only a very small amount of the selenium preparation to calm the withdrawal symptoms for a short time. When the patient felt a return of the symptoms or an urge for the addicting drug, he was given an injection of sterile sesame oil or of a preparation known as being inefficient. In every instance the incipient withdrawal symptoms became magnified and the patient often became uncontrollable. A number of these patients became so agitated that they signed themselves out of the program. An adequate treatment with injections of the selenium preparation and adjuvant solution calmed the withdrawal symptoms within minutes. This procedure was repeated on a number of different patients, as well as on the same patient at different times, and was always followed by the same effect.

Double blind studies will have to be carried out next in an institution better equipped to implement such an aspect of the program.

COMPARISON

The subjects who had undergone previous detoxification treatments, remarked on the difference between this and other earlier treatments. They particularly pointed out that with our treatment they no longer felt the need for the addicting drug. With methadone, for example, they claimed to have remained with pains in the legs and especially with the urge for the addicting drug during, and even after, treatment. In contrast, the urge for the drug disappeared practically with the first injection of our treatment, and then did not recur.

FOLLOWUP

After the first injection with the selenium preparation almost no patient has voiced the desire the drug. Upon leaving the hospital after 5 to 8 days, they all manifest emphatically this lack of need for the drug. On followup visits many subjects were seen to have remained free of narcotics weeks and even months after treatment.

Others, however, resumed taking drugs. It is nevertheless important to point out that not a single patient who has resumed taking the drugs and who has come back for help, has said that he did it because of a return of the "urge." A few resumed using drugs because of unresolved psychological problems. Many because they were "forced" by friends, and have been using addicting drugs without any need or desire for the drug. Most of the patients after treatment return to their old problems and their unchanged environment. They do not receive psychological or social help. Yet, inspite of this, of about 150 patients referred to us by Rev. Raymond Massey of the Neighborhood Board No. 5, Inc., 22 percent have returned to steady jobs without additional medication, and without the help of psychological or social services. Of those receiving outside help, another 17 percent have returned to steady jobs.

VALUE OF THIS APPROACH

In this important problem of addiction, we must evaluate as objectively as possible the contribution which every new approach may bring to the solution of the problem. Based on the the results we obtained, our treatment seems to represent a working solution of the medical problem of addiction. In a few days the addict becomes free from the craving for the drug, without having to undergo the torture of the withdrawal syndrome. This then opens the door for the second and third approaches, namely the psychological and social ones.

Without the physical need for the drug, many of the patients become aware of the important part played by their psychological condition and ask for psychiatric and social help.

The efficacy of the treatment gives back to the patient the hope he had lost, namely the possibility of a total recovery. By no longer facing the medical problem, the psychiatrist can treat a subject who is no longer hopeless or even hostile, but one who is looking for help, like a nonaddict in his situation would do. And this is the important contribution of our treatment to the psychological problem of addiction. The experience of psychiatrists—in particular that of Dr. D. Casriel, New York City—in the field of addiction has confirmed the importance of the relationship between our medical approach and the indispensable psychological treatment of addiction.

While the treatment contributes to the solution of the medical problem of addiction, we must emphasize the need to integrate it into the more general problem with its psychological and economical aspects. The medical treatment will show its full value as part of such a complete program.

(Based on a lecture given at the Trafalgar Hospital medical staff meeting, May 23, 1970)

EMANUEL REVICI, M.D., SCIENTIFIC DIRECTOR, INSTITUTE OF APPLIED BIOLOGY, INC.

TREATMENT OF DRUG ADDICTION

It is unnecessary to emphasize the importance of a simple, safe, efficient, and inexpensive method for the control of the medical aspect of drug addiction. This represents the key for the completion of the treatment through an efficient psychological approach—and further social adjustments.

The method derives from a special concept concerning the pathogenesis of the drug addiction itself. The addiction corresponds thus to a peculiar abnormality of the defense mechanism of the body toward the influence exerted by external agents, when introduced into the organism. In this special case of an addictive drug the progressive series of defense substances evaluated is stopped at a relatively low level. The incapacity of the body to manufacture higher more specific defense substances against the addicting drug results in a quantitatively exaggerated aspect of less specific lower means. The excess itself of these defense substances constitutes an abnormal condition. The apport of the drug, with the capacity to neutralize the defense substances in excess, suppresses temporarily the existing anomaly. At the same time it enhances however the production of more defense substances, increasing thus the addiction itself. The low specificity of the intervening defense substances explains the possibility to substitute one addicting drug by another, in order to temporarily neutralize them.

If the addicting drug is not taken, the organism tries by itself to resolve the existing abnormal condition of the excess of low defense substances. This is done through the intervention especially of the parasympathic system. It is this intervention which constitutes the withdrawal manifestations. The apport of the drug, with the consequent neutralization of the defense substances, stops the intervention of the nervous system and of the withdrawal symptoms.

It is the concept of the pathogenesis of the addiction and of the withdrawal manifestations which has led to the therapeutic intervention. The agents of the preparation Perse were chosen to act upon the processes involved in addiction.

The preparation Perse is in a sterile injectable form, readily absorbable.

Toxicity studies have shown practically the absence of toxicity. Doses of 6 cc. of Perse per 100 g. of animal in mice and rats were seen to be well supported. Reported to human beings they would correspond to an injection of 6,000 ml. The same, the preparation introduced by catheter into the stomach of mice, were seen to be without toxicity. Similar values were obtained in subacute toxicity studies, followed over 10 days with 1 ml. by injection or orally. No gross or microscopic pathology was found in the animals sacrificed after this period. No toxicity was seen in the study of chronic toxicity followed over 3 months.

No toxic effects were seen in humans treated with these preparations, as revealed by clinical and analytical studies.

SCHEME OF TREATMENT

The treatment aims to control drug addictions, preventing at the same time the withdrawal syndrome.

Agents Used.—Preparation Perse. An organic compound of negative bivalent selenium, sterile for injections.

Toxicity.—Doses of 2 ml. injected I.P. or S.C. to 28–30 g. mice or of 20 ml. injected I.P. or S.C. to 150 g. rats were not toxic.

Similarly no toxicity was seen in subacute and chronic toxicity. No local or systemic side effects were seen in humans with repeated 10 ml. doses injected I.M.

Conduct of Treatments.—The first day doses of 10 ml. of Perse are injected to the subject three times a day—that is at 8 hours interval and at least as frequently as he would usually take his drug. If the subject was taking high doses of narcotics, this interval is reduced to 6, 4 or even 3 hours. It is the same if any withdrawal symptoms appear before the schedule time for the next injection. An injection is then given immediately and the time between the next injections is reduced to a value below the interval.

This form of treatment is followed for the first 24 to 48 hours, after which the subject receives only one injection every 12 hours the next day and one injection the following 24 hours.

With this form of treatment the patient remains free of his addiction within 2 to 3 days without having had any symptoms of withdrawal.

If necessary, especially for psychological reasons, the treatment may be prolonged for a few more days at the rate of one injection a day or repeated as often as desired, without any inconvenience.

[Exhibit No. 14(c)]

SIGNIFICANT THERAPEUTIC BENEFITS BASED ON PEER TREATMENT IN THE CASRIEL INSTITUTE[1] AND AREBA[2]

(Daniel Casriel, M.D., New York, N.Y.)

Historically, the treatment of emotional and behavior disorders has been the province of authority figures. We have called these authority figures witch doctors, priests, holy men, faith healers, doctors, alienists—psychiatrists. Society in general, and the individual in particular have delegated to these men not only the rational authority due them, but also an irrational authority premised upon the possession by them of magical omnipotence in one form or another.

Two hundred years ago the mainstream of western society ceased ascribing magical curative powers to its doctors and priests. But the sick or incapacitated individual, in his state of helplessness, frequently—at times unconsciously—attributes magical power to his doctor or other healer.

Occasionally, the doctor or doctor-surrogate can utilize the role of magical omnipotence, given him by his patient to help him. But the doctor can also use this role has a cloak to hide his own feelings of therapeutic inadequacy and helplessness However, once the contract is made, neither patient nor doctor can, each for his own reason, admit to the healer's lack of magic.

Therapeutic improvement, limited by the nonverbalized contract of delegation and acceptance of magic on the part of patient-doctor, comes to a halt Treatment, by the very nature of the relationship, cannot be reconstructive, but at best reparative, more often, just supportive. Very frequently after an initial improvement, the patient becomes worse when doctor-father-God cannot or will not continue to live up to the role mutually agreed upon. The doctor's magical role that he accepted, encouraged, or seduced from the patient has now backfired. The patient feels betrayed and angry. The doctor feels annoyed and would like to rid himself of the problem patient

Modern psychiatry, stemming from the basic concept of Freudian theory, attempted via psychoanalysis to use rational authority to reeducate the irrational authority the patient delegates to the doctor. Unfortunately, psychoanalysis is not only a very long and costly process, but it is also effectively useful only with those personality structures that are both basically adult (versus childlike) and neurotic (versus character disordered) to begin with all the other categories are, to a greater or lesser extent, unable to utilize psychoanalysis, as can be seen in the following chart.

BASIC PERSONALITY TYPES[1]

Level of personality integration	Psychotic	Neurotic	Character disordered
Adult	Psychotherapy with psychopharmacology.	Reconstructive analytic therapy.	Classical forms of treatment relatively ineffective.
Adolescent		Perhaps reconstructive analytic therapy.	
Childlike		Reparative therapy	
Infantile		Supportive therapy	

[1] The major difference between character disorder and neurotic has been published by the author in "Physician's Panorama," October 1966.

Currently, an ever-growing list of self-help groups are being established. Starting with Alcoholics Anonymous in 1936, we have seen the rise of Gamblers Anonymous, Weight Watchers, Addicts Anonymous, Neurotics Anonymous and groups for wives, parents and friends of the afflicted. Self-help therapeutic communities such as Daytop and Synanon, and more recently, scores of lesser known smaller self-help communities and storefront operations such as Encounter and SPAN are sprouting and growing.

---

[1] The Casriel Institute: the treatment and training facility for the new identity group process and theory. This new theory and process will be published by Coward-McCann in a book called A Scream Away From Happiness to be written by the author.

[2] AREBA: A private therapeutic community for the rehabilitation of middle and upper class drug addicts and other behavioral bankrupts. AREBA (accelerated reeducation of emotions, behavior and attitudes).

Why is this happening? What need are these organizations fulfilling that traditional therapies (medical, paramedical, or religious) failed to fulfill? Who are the people helping and being helped that found no help by professional workers? How are the incurable and unhelpable being helped by each other? Who are they able to help, and why are they able to help each other? What is the new "magic" ingredient? What can trained professionals learn from all this?

Simply stated, we must examine the process involved with words such as peer relationship, responsibility, concern, involvement, absence of magic, confrontation.[3]

First and foremost is the concept of equality—peer relationship. Both in AREBA and at the Casriel Institute the member entering in the groups or into AREBA is treated as a potential equal, a peer by the group, the group leader and the AREBA staff. By inference, it is assumed by all the members of the group and the staff that the new member's potential for healthy functioning is basically equal to any other in the group, including the group leader or AREBA staff who make no secret of once having been in the new member spot). The entering member is quickly told there is no magic, only hard work. We can teach, but the member must learn; no one can do the work for him or learn the lesson of feeling, thinking, and behaving for him. Each must learn for himself. Each learns that the more he attempts to involve himself in teaching his peers, the more he learns for himself. To paraphrase Dr. Cressey, if criminal A attempts to help rehabilitate criminal B, criminal B may not be rehabilitated by A's activity, but A will almost certainly benefit.

The new member soon learns that others around him have no magical gifts. Some have inherent special attributes that make them better in some areas than in others—but all have the potential for happiness. He learns that he can be as mature, secure, adequate, lovable, and affective as all those around him.

Not only is there no "we—they" situation such as we the patients, they the therapists, but neither is false therapeutic contract able to be established. The nonverbal, unconscious transfer of magical curative powers cannot be consummated. The patient-member soon learns that he is not only responsible for, but capable of his own growth and development. The whole concept of who is responsible for "getting well" or growing up, is clearly defined.

If a patient delegates magic to the therapist or the therapist accepts the responsibility of getting the individual well, reconstructive treatment of all but the adult personality (where little if any magic is delegated or accepted) is doomed to failure. A therapist has no real magic power. All he has, and this is in no way an underestimation of his role, is empathy, a desire to help another human being, and knowledge which, if learned and applied by the patient, can be curative. The leader's knowledge to some degree was gained from his own academic work, but mostly, and most importantly, from his own experience working first on himself, and then on others.

The peer group process as practiced in both AREBA and the Casriel Institute by the author, is so constituted that it does not allow the patient to delegate magic powers to the therapist(s) and prevents anyone, out of concern, from assuming responsibilities that in realty, he cannot fulfill. One can be responsible only to the degree one has control of one's thinking, feeling and behavior.

Therapy is frequently misused because of the conflict and confusion of the relationship between patient and therapist described by the words "responsibility" and "concern." However, human relationships in general are frequently mangled by the same confusion. Healthy parents are not only fully concerned for their newborn child but are also fully responsible for his well-being. As the child grows older, he must accept a greater and greater share in the responsibility for his own life. By the time he is adult, he has total responsibility. His parents no longer have any responsibility though their loving concern may be just as great or even greater than the day he was born.

A good therapeutic process, whether in AREBA or in the Casriel Institute, is to assume only the responsibility of teaching the member what he is doing, thinking, and feeling; and what he has to do and feel to be mature. Learning is up to the member's doing, thinking, and feeling.

---

[3] Definitions (*a*) Treatment—Any measure designed to ameliorate or cure an abnormal or undesirable condition; (*b*) Rational authority is based on genuine ability and competency and is exemplified by the teacher imparting knowledge to a pupil; (*c*) Peer—It is significant to note that this word is not defined in the psychiatric dictionary; (*d*) Therapy—Treatment of disease; therapeutic; (*e*) Therapeutic—Pertaining to or consisting of medical treatment; healing, curative.

The concomitant is the assumption upon the part of other members that the new member is potentially equal to them and is equally capable of doing for himself and growing up.

In AREBA, it is assumed that the new entering member knows nothing, has learned nothing but self-destructive, maladaptive behavior, thinking, and feeling. The members and staff of AREBA have in their own growth learned to be truly concerned for the entering member. They enjoy the challenge and will involve themselves with the new member. They know that the more they teach, the more they learn. They desire to give. They are given the time and knowledge to teach the newer members everything they need to know to be mature, loving, adult human beings. An entering member's potential for being a mature individual is assumed when he arrives.

There is also the assumption that the emotionally and socially bankrupt member has learned nothing constructive for himself. The staff and senior residents of AREBA painstakingly teach the new member minute by minute, hour by hour, day by day, week by week, and month by month how to do for himself; how, in effect, to act like a mature human being. After a few months, the member starts to learn how to feel like an adult human being—and feels what an adult human feels.

In the Casriel Institute, the patient is confronted at the stage of his emotional, vocational, educational, and social maturation at which he enters the group therapy process and is taught from that level upward.

There is a general avoidance of constructive confrontation throughout our society's social fabric, because most people fear the consequences of challenging and being challenged. If a child disagrees with his parents, he is scolded, punished, rejected. If he disagrees with teachers, he is reprimanded, expelled, or failed. If one disagrees with the boss, he may be fired for insubordination, recalcitrance or personality incompatibility. If one disagrees with the social power structure, he may be considered a traitor, criminal, rabble rouser, coward, anarchist or fascist. Disagreement with any authority within our culture gives one a stamp of social disapproval. We have grown up with the attitude that even if we're right, to disapprove of authority will result in pain or loss of love.

Translated into a peer relationship, the attitude becomes, "I'll mind my own business." 1. If I try to help, I'll only get hurt (i.e., the murders that in the sound and sight of others were not interdicted). 2. If I reach out and show my concern by expressing constructive criticism, I leave myself open and vulnerable to other criticism * * * people in glass houses shouldn't throw stones.

This peer indifference and isolation is endemic throughout our social fabric. human—including therapeutic—relationship if personal growth is to ensue. The Yet constructive challenge between equals is precisely what is needed in any therapist, be it friend, doctor, or group member, will, in this open bilateral interaction, change and grow too. The therapist must not only be willing and able to change, but to show by example—by his role model position—that the enjoyed and benefited from the experience, though he too was once frightened and lost. He was not delivered into adulthood magically well but had to undergo his own painful therapeutic re-education, which was hard work, and only later became training for what he is now doing.

The humanistic-peer attitude on the part of the therapeutic teacher-leader is essential. Peer relationship on the part of the therapist demands a more personal kind of involvement. It leads to a quicker, more resonant, and fuller human growth for the patient. It is diametrically opposite to the formal, detached, impersonal, nonfeeling therapeutic relationship demanded in our training and experience in psychoanalysis.

The effectiveness of humanistic-peer involvement as a therapeutic treatment process has several significant implications.

First and foremost is a total change of attitude that professionals have to develop in order to effectively engage in this type of process.

Second, the obvious empirical observation that a feeling human being, who has learned for himself as a patient-student the process, and has the capacity, ability, and desire to engage others, can be an extremely effective therapeutic change agent. Previous academic training is of relatively little use, though previous life experiences are of great value as are one's own former neuroses or character-logical problems which have been resolved. In line with this, cured hysterics are most effective with uncured hysterics; cured alcoholics are most effective with uncured alcoholics; cured drug addicts are most effective with uncured drug addicts; and cured homosexuals are most effective with uncured homosexuals. However, this does not mean to say or imply that one has to be an ex-hysteric, alcoholic, drug addict, homosexual, to do effective intervention. The peer symptoms identification early in treatment is extremely helpful and in some cases necessary, but within a few weeks all patients, no matter what the variation of symptoms, realize they have the same problems,[4] that below the symptoms, they are all human beings with the same basic needs and desires and the same basic fears.

Third, psychoanalysis must be returned to the areas where it belongs; as a highly specialized, very limited fine tool, in the tool chest of psychotherapy.

Fourth, because of the relative ease of treating and training, large numbers of individuals can be treated and trained at little cost and relatively little time. This means that large numbers of skilled group leaders can become available to meet a tidal wave of need. Costs are within realistic ranges.[5]

Fifth, it is logical to see the role of the professionally experientially trained psychiatrist, psychologist and S.W. as consultant and trainer of the trainers, as well as being used as the agent of initial interviews, medication, testing or using traditional ancillary roles.

The significance for society is that the large number of untreatables could now be treated; the large numbers who could not afford treatment could now afford it; the large numbers who wanted treatment but had no available therapist in the area could now find therapists; a large number who were unwilling or unable to commit themselves to many years of therapy could now look forward to major reparative psychotherapy and reconstructive (major personality change) therapy being done in a matter of months for most, or 1 to 2 years for some.

Indeed, this process, if fully applied, could make a significant impact relatively quickly on major portions of our sick society.

[Exhibit No. 14(d)]

AREBA, INC., A HUMANIZING PROCESS FOR THE FAMILY OF MAN

INTRODUCING AREBA, A NEW CONCEPT IN REHABILITATING DRUG ADDICTS AND OTHER EMOTIONALLY DISTURBED PEOPLE

A NEW PSYCHOTHERAPEUTIC TREATMENT PROGRAM FOR MIDDLE-CLASS AND UPPER-CLASS ADOLESCENTS AND ADULTS—DESIGNED FOR SEVERELY CHARACTER DISORDERED PERSONALITIES WHO DO NOT NEED A SUSTAINED 3-YEAR PROGRAM TO GET WELL

> In 9 months—the time it takes to conceive and give birth to a baby—AREBA can reprogram a person toward in-the-world behavioral and emotional health.

At highly successful Daytop Village, 3 years used to be required to rehabilitate an addict. But, today, new techniques have reduced the time to a year and a half. Now, Psychiatrist Dan Casriel and Ron Brancato, former director of program at Daytop, have utilized their experience to establish a new kind of program for middle-class emotionally disturbed people.

Frankly, AREBA is a hard-nosed program that isn't easy. (At least, at the beginning. When people have been in AREBA a few weeks, they usually start to like it * * * and to develop an esprit de corps about AREBA.)

The program starts by telling newcomers to stop acting out their symptoms. Immediately. Then, it goes to work on the distorted feelings and defeatistic attitudes which have caused the symptoms to exist in the first place.

AREBA makes people face the truth about themselves, find out who they are, and grapple with how they feel inside. At the same time, it trains people to function in the world in which they must live.

The AREBA program is designed to treat people whose emotional problems prevent them from functioning effectively and responsibly within the boundaries of normal society. There are no rigid age restrictions. AREBA is structured to focus on the problems of both adolescents and adults. AREBA is based on the principle that psychiatric treatment alone is not enough to rehabilitate an infantile neurotic or character-disordered personality—who, invariably, does not know how to function. The program is designed to help an individual in two ways: (1) to provide psychotherapeutic treatment to help him express and understand distorted feelings and self-defeating attitudes; and (2) to provide step-by-step guidance about how to function more effectively in the world.

---

[4] Inability to accept love or express identity anger. This is the subject of another paper submitted for publication by the author.

[5] "The Use and Abuse of Paraprofessionals"—unpublished paper by the author.

The program has been founded and structured by Psychiatrist Daniel Casriel and Ron Brancato, former director of program of Daytop Village. It is realistic, tough minded, and extraordinarily effectively. Study the schedule following and see for yourself why AREBA is different from other approaches you may have read about.

The AREBA program lasts 9 months, and consists of three distinctly different phases of personal growth.

Phase I—First 4 months, 24 hours a day, 7 days a week

At the start, a young person is immersed in a 24-hour-a-day structured discipline. For example, he arises at 7:30 a.m., immediately begins to clean his room, and eats breakfast. Then, his day continues with meetings, seminars, group thereapy sessions (held every day), and specific work responsibilities. Every hour of the individual's time is programed. He ineracts with others during free time, and is accountable for everything he says and does. Special "probes" (lasting 8 to 12 hours) explore self-defeating attitude patterns. "Marathons" (30-hour extended group-therapy sessions) are aimed at breaking down emotional defenses, and getting members of AREBA in contact with gut-level feelings.

Phase II—Fifth month through seventh month

In the next phase of treatment, a young person starts to attend school again. Or, if he is through with school, he goes to work outside of the AREBA community. He is encouraged to apply what he has been learning in phase I training. But he continues to live in the AREBA community, and continues to be involved in Dr. Casriel's new identity groups, probes, marathons, etc. In therapeutic sessions, the emphasis is on helping the individual express his fears and anxieties, and helping him learn how to function more effectively in the expanded world to which he is now relating.

Phase III—Eighth and ninth months

In the final phase of treatment, an individual both works and lives outside of the AREBA community. His involvement with AREBA is to attend encounter and new identity groups three times a week. During these groups, he works on feelings and attitudes which may be preventing him from adjusting healthily to the nontherapeutic "outside world." He also spends time serving as a role model for people entering AREBA for the first time.

Parents get training, too

Throughout the 9-month period, special groups and special counseling are provided for parents of young people who are in the AREBA program. With parents, the emphasis is on establishing a permanently better relationship between themselves and their offspring.

[Exhibit No. 14(e)]

THERAPY OF NARCOTIC ADDICTS SPARKS PSYCHIATRIC THEORY

[From the Medical Tribune—World Wide Report]

NEW YORK.—A psychoanalyst said here that he has evolved a psychodynamic theory to explain character disorders by observing and working in the successful rehabilitation of narcotic addicts. The theory is based on the concept that persons whose primary method of defense is withdrawal, not "flight or fight," "fit into the pyschiatric classification of character disorder."

Dr. Daniel H. Casriel explained both his theory and the rehabilitation process, which he called "the Daytop phenomenon," at a meeting of the American Society of Psychoanalytic Physicians, of which he is president-elect. The term refers to Daytop Village and Daytop Lodge, addict-reform communities in Staten Island, N.Y., patterned after the Synanon centers, with some modifications of technique.

"Daytop is the breakthrough in the treatment of the drug addict," said Dr.

Casriel, who is medical-psychiatric superintendent of Daytop Village. "For the first time, an addict upon entering Daytop sees 100 people who were also addicted but who are living happily and functioning without drugs or the preoccupation with the thought of drugs."

Daytop Village has been in existence for 6 months. It is an outgrowth of Daytop Lodge, established under a 5-year National Institutes of Mental Health project to compare the results of several alternative probation arrangements for felons of the Second Judicial District, New York Supreme Court, and initially limited to 25 probationers.

"People live in Daytop in a pleasant, paternalistic, tribelike, family environment," Dr. Casriel said, paraphrasing his book on Synanon, "So Fair A House." The members think of Daytop neither as a hospital, a prison, nor a halfway house, but as a family-type club or home—a fraternity of people living together and helping each other to get well * * *. The members are neither patients nor inmates; they are free to leave any time they wish."

ONCE BELIEVED THERE WAS NO HOPE

He said that he himself had once believed there was virtually no hope for drug addicts: "Ten years of contact through community psychiatry with the problem of drug addiction had left me deeply pessimistic * * *. My observations had almost brought me to the conclusion that, once addiction was established in certain predisposed but undefined personalities, a basic metabolic change or deficiency was produced in the addict, manifesting itself in a craving that only the opiate could relieve."

"That was my position until I discovered Synanon 3 years ago," he said, calling Daytop "the amalgamation of the best that was Synanon and the best of the professional understanding and knowhow."

Citing the relative lack of success of psychiatry in the treatment of character disorders, he said that "the question I kept asking myself was, 'Why were nonprofessionals able to stumble upon a rehabilitation and cure of the drug addict, whereas professionals, as a general rule, were completely unsuccessful?' At last I feel I've discovered why.

"After working intensively learning the process of treatment of the drug addict specifically and the character disorder in general, I was finally able to trace it back and evolve a psychodynamic theory which to me explains why the process works."

The theory, he said, was a modification of the psychocultural views developed by the Columbia School of Adaptational Psychodynamics.

"A major defect in the adaptational psychodynamic theory," asserted Dr. Casriel, "was its lack of awareness that there are three major methods of coping with pain or stress. * * * They accounted for two of these ways by the mechanisms of defense called flight or fight, using the emotions of fear or rage. What they failed to bring into focus is that there is a major, perhaps more primary mechanism in which one avoids danger or pain. * * * It uses neither the emotions of fear nor rage and may be called isolation or encapsulation. * * * Some people withdraw from the pain of awareness, the pain of reality, what they experience as the pain of everyday functioning, by withdrawing unto themselves."

It was his observation, he said, "that those people whose primary mechanism of defense is withdrawal are those who fit into the psychiatric classification of character disorder."

Once this "intrapsychic world without tension" has been evolved, he continued, "the individual will overtly or covertly fight anyone who attempts to remove him from his prison-fortress. * * * Once the adaptational mechanism of isolation is evolved and becomes a primary mechanism, the standard psychoanalytic techniques using introspections and observation are useless. The individual patient, though he hears, cannot be reached."

SHELL MUST BE REMOVED

To treat such patients, Dr. Casriel said, "One must first remove the shell and prevent the individual from acquiring or running into any other kind of shell." Then he must be taught how to grow up emotionally, socially, culturally, sexually, vocationally, and educationally.

On this basis, addicts entering Daytop are given two simple prescriptions: no physical violence and no narcotics or other chemicals—"and by inference no other shells under which to hide." Only one reaction to his stress is left open to the Daytop member—fear. He can leave Daytop if unable to cope with his fears. However, said Dr. Casriel, "We anticipate that at least 80 percent of those who enter Daytop will sooner or later remain to get well."

If he stays, the member is given two prescriptions—go through the motions and act as if. The first means to abide by the rules and follow instructions, like it or not. If a member complains that he doesn't know exactly how to do as he is told, he is instructed to act as if * * * you knew what to do * * * you had the experience * * * you are mature * * * it is going to be successful * * * you are going to grow up and get well * * * you are already well and adult.

"When people go through the motions of acting as if," Dr. Casriel said, "they start thinking as if and finally feeling as if." At the beginning of this process, there is a crucial 90-day hump during which painful underlying feelings come to the surface, he said, but the support of others at Daytop helps the new member.

COMMUNICATION IS TREATMENT

Treatment through communication then helps the member to understand that the undifferentiated somatic painful feelings that he has experienced on a visceral and emotional level * * * are nothing more than fear, anger, guilt, and depression, emotions experienced by all humanity * * * are not exclusive to what he felt was the mystical parahuman called the drug addict.

Tools of communications used at Daytop are a form of group therapy called the encounter, seminars, public speaking, psychodynamic interviews, lectures, and community relations. There are also rituals and rites of passage, including the intake and indoctrination processes, entrance into regular membership after a month's probation, a birthday after a year, and primitive rituals to maintain discipline, called the haircut and the general assembly.

[Exhibit No. 14(f)]

The Family Physician and the Narcotics Addict

(By Daniel H. Casriel, M.D.[1])

(From the Sandoz Panorama, February 1970)

Because of my work in rehabilitation of drug addicts, I am often called upon for help by family doctors faced with this problem in their practices. The following is basically a summary of the answers I have given to their questions.

People seeking relief from their emotional problems have always been among us. Drugs are not a specific maladaptive resolution of an emotional need, but our present culture is drug oriented. Most of us have not the slightest hesitation in taking aspirin at the first twinge of a headache or a sleeping pill for a restless night or two. The underpinnings of this drug orientation are widespread and culturally accepted. One has only to turn on the nearest radio or television set to be cajoled, pleaded with, even intimidated into buying any of the medicinal remedies for a wide variety of common conditions. The easy availability of medicines through comercial production, widespread distribution, and multiple sources of supply, makes the awarweness, acquisition, and use of all kinds of drugs so easy as hardly to be given a second thought. In this way the ground is prepared for the specific use of narcotic drugs, and the resulting addiction to them by the emotionally troubled.

Availability is a prime factor; it is, indeed, a fact that those sections of the country which are closest to sources of supply have the greatest problem in this field. One obviously cannot be a heroin addict without access to heroin. A housewife in the black ghetto of Harlem, might be (one could even dare to say, would probably be) addicted to heroin and in close contact with her pusher; whereas a housewife in Iowa might be habituated, if not addicted to some barbiturate, tranquilizer, or stimulant, while maintaining a very close relationship with her doctor-supplier.

Anyone who is not functioning, or who is under achieving in a responsible task, is potentially susceptible to drugs, and a certain percentage of these people will resort to heroin. One must not forget that before the narcotics laws were passed in the early part of this century, we had anywhere from 2 to 5 million people addicted to various nostrums containing opium.

---

[1] Dr. Casriel is well known for his successful rehabilitation of narcotics addicts. He has been medical director of the Daytop therapeutic community, and its affiliates, for many years. He also has a private psychiatric practice in New York City.

DIAGNOSING ADDICTION

The family physician dealing with a great variety of patients can—indeed should—make a differential diagnosis specifically excluding drug addiction of any one who is not functioning near his capacity, or of anyone suffering from a great deal of anxiety or depression (often masked as fatigue). Look for unexplainable needle marks or scars on the arms. Test the urine for morphine or its variants.

The psysician should be cautioned in two ways. First, prescribe no narcotics unless absolutely necessary, and even then only to patients known to you. Second, anyone coming in for chronic refills of barbiturates, tranquilizers, or amphetamines, should be referred for psychiatric help before they become addicted to stronger drugs.

There is also a third aspect which should be borne in mind. This is that the patient who demands a narcotic for continued or intermittent pain (which may or may not be somatically induced) is addicted. This addiction may have been iatrogenically induced for valid medical reasons, but it is the responsibility of the physician who so addicted his patient to ensure safe weaning and detoxification as soon as possible. Those physicians who are asked to mantain someone on narcotics whose history they do not know, may be perpetuating an illegal addiction, and are guility of malpractice, not only in a legal, but also in the medical sense.

CURE IS AVAILABLE

A severe conflict faces a family physician in determining what to do with a known drug addict who happens to be a friend, closely related to a friend, or any well-respected member of his community. Many physicians in such circumstances have perpetuated the individual's addiction, feeling that there is no real help, or that help is not available. Let me now state quite emphatically that a cure is available.

For the past 6 years we have been curing drug addicts at Daytop Village. Daytop is a therapeutic community. At the moment it consists of almost 300 ex-addicts, men and women, with and without their children or their mates, plus a staff of about 40 (about a third of whom are ex-residents) living together and helping each other to recover. Physically Daytop at present consists of three facilities: the original one in Staten Island, a second at Swan Lake, and a third recently opened on 14th Street, Manhattan.

There is no magic in rehabilitating a drug addict. There is only an understanding of how to do it, a lot of hard work in doing it, and responsible love and concern by all involved. The program consists of: intake procedures; intensive group encounters several times a week; seminar sessions to improve the member's ability to communicate verbally, to enlarge his interest and knowledge, and to enable him to comprehend abstract concepts beyond his daily life experiences; and then, of course, there is work, all kinds of work and plenty of it, because the members of Daytop are taught to be self-sufficient.

Daytop has a record of 92 percent recovery. That is to say, not only are 92 percent of those who have graduated now free from drugs, but they are living mature, productive and responsible lives. Many have returned to us and now work with us in staff positions, supervising and participating in all the internal work. The staff ratio to resident population, incidentally, is 1 to 22, thereby making Daytop probably the least expensive, and certainly the most effective, of any kind of program so far tried.

DAYTOP HISTORY

I wrote an article for this magazine about 3 years ago (in the vol. 4, No. 8, October 1966 issue) in which I detailed the manner in which, having found standard techniques useless, we developed our methods, and I described the stages we worked through with our members in helping them to achieve new, mature, secure personalities. In the meantime Daytop has grown and changed and, indeed, is still growing and changing. Originally the stay that a resident could expect when he first came in was about 3 years. Today the expectation is down to 20 months, and we hope, as still newer processes are introduced, to be able to turn out a healthy human being within 15 months or less.

Our chief tools are (1) the provocative behavioral encounters, which are group therapy sessions, but of a different degree of intensity from the usual polite and inconsequential type generally practiced in clinics or in prisons, (2) an introspective emotional encounter, and (3) the daily seminar, which might be described as a sort of mental Swedish drill, an exercise in the use of words, thoughts, areas of knowledge which will help the member overcome his discomfort at expressing himself, and broaden the scope of his ideas.

Then (4) the work itself, the job assignment, is also a tool of rehabilitation. The prevailing values are in conformity with the norms of the so-called Protestant ethic: hard work, family responsibility, regard for others, thrift and cornern for the future. Lower status chores are assigned to newcomers, or as a form of sanctions for older residents who have infringed some house rule. The negative values of the addict are replaced largely through the socialiing pressure of the group therapy meetings, the seminars, and the day-in day-out living together with others working through, or who have worked through, the same or similar problems.

I shall not go into full details of the Daytop procedures, which I covered in my previous article. The important point to remember is that there is a rehabilitation method which is proven. It works. There is a solution, and there is hope for the addict and hope for society. Not only in Daytop itself, but by the role model it has formed, other institutions may see ways to change so that society as a whole, as well as the individual addict, will benefit.

I understand the problems of family physicians who practice in areas where therapeutic communities such as Daytop do not exist. This problem can be solved in two ways. Out-of-State residents can be taken into Daytop on payment of about $350 a month, or, if you have large numbers of addicts, Daytop personnel can develop, with your help, a Daytop in your area.

TYPES OF ADDICTS

There are basically four types, or degrees, of addicts. One is the preaddict, the person who has a potential to be addictive and who, if set in an environment where there are drugs around, will become addicted. Then, there is the fringe, or peripheral, addict. He is already "chipping," is already on some narcotic drug. He has a predisposition and, if allowed to continue, will develop an addiction. The third type is what I call the soft-core addict, who is taking heroin, but has been taking it for perhaps less than a year. He might have been arrested. He might have been put in jail. But his whole life doesn't yet center around addiction. Finally there is the hard-core addict, whose life has been totally centered around drug addiction for at least a year, and in most cases for several years.

Daytop only takes in the hard-core addicts. The preaddict, the peripheral addict, and the soft-core addict have been successfully treated at the Daytop clinics called SPAN (Select Panel Attacking Narcotics). These are storefront facilities which serve several purposes. They enable the local community to become aware of Daytop therapy; they exist as a counterepidemic force in areas where the use of drugs is high; they offer a helping hand to the local community wherever the need arises; they serve as a vehicle for reentry, where the graduate of Daytop can confront neighborhood pressures and attitudes that helped give rise to his own use of chemicals. Most importantly, these facilities confront early and peripheral drug users with an alternative, and try to rehabilitate them right at the storefront through group encounters, seminars, and interaction with rehabilitated Daytop personnel.

PRIVATE TREATMENT

Pre- and peripheral addicts can, of course, be treated privately, too. I have successfully treated, and am currently treating, very many such cases in my own private practice. Any physician who is so inclined can receive training in this new process. Shortly, a book about Daytop called "The Concept" will be published by Hill & Wang. Another book, "A Scream Away From Happiness," on the theoretical and treatment aspects of the process, will be published a few months later.

In the meantime, for more details, I would refer you to the article "New Success in Permanent Cure of Narcotic Addicts" in this magazine (vol. 4, No. 8, October 1966), or to Daytop itself, which has recently prepared a detailed brochure outlining its activities.

[Exhibit No. 14(g)]

CURRICULUM VITAE OF DANIEL H. CASRIEL, M.D., DIRECTOR, AREBA

TRAINING

Premedical

(1) Rutgers University, four semesters, prelaw and accounting, September 1941 to March 1943.

(2) Iowa State College, two semesters, engineering, Army specialized training program, September 1943 to March 1944.

(3) Indiana University, three semesters, premed., March 1944 to January 1945.

Medical

(1) University of Cincinnati, September 1945 to June 1949; M.D., June 1949.

Post Graduate Training

(1) Internship: Brooklyn Jewish Hospital, July 1949 to June 1950.

(2) Psychiatric residency: Kingsbridge V.A.R., Bronx, N.Y., July 1950 to October 1950; March 1952 to December 1953 (including Manhattan State Hospital and Jewish Board of Guardian, for child therapy, Letchworth Village for mental defectives).

(3) One year credit for assistant chief and chief, neuropsychiatric service, Ryukyus Army Hospital, Okinawa, October 1950 to February 1952 (Captain, Medical Corps, U.S. Army).

Military Service

(1) Active duty, March 1943 to February 1946, October 1950 to March 1952; inactive reserve, November 1942 to November 1962.

Analytic Training

(1) Columbia Psychoanalytic Institute for Training and Research, September 1952 to February 1954.

(2) Personal analysis: Dr. A. Kardiner, December 1952 to June 1960.

LICENSURE, ETC.

(1) Qualified psychiatrist, State of New York, 1954.

(2) Diplomate, American Board of Psychiatry and Neurology in Psychiatry, 1957.

(3) New York State Board License No. 73985.

(4) License to practice medicine:
  (a) Ohio, 1949, by examination:
  (b) New Jersey, 1950, by reciprocity;
  (c) New York, 1953, by examination; and
  (d) California, 1960, by examination and reciprocity.

PROFESSIONAL POSITIONS

(1) Private practice of analytic psychiatry since December 1953 (80–90 percent of working time). Director of Clinical Institute of the Casriel method (new identity process).

(2) University Consultation Center, Bronx, N.Y., December 1953 to June 1954.

(3) Three schools project of the New York City Youth Board and Board of Education, December 1953 to June 1956.

(4) Assistant clinical attending, Hillside Hospital O.P.D., Mt. Sinai Hospital, December 1953 to June 1956.

(5) Court psychiatrist to New York City Court of Special Sessions, September 1954 to June 1957.

(6) Posthospital resident housing program of Jewish Community Service of Long Island Hospital, June 1956 to June 1961.

(7) Therapist to the Girls' Club of Brooklyn, N.Y., September 1956 to June 1961.

(8) Instructor to New York City teachers and guidance counselor, September 1956 to June 1959.

(9) Lecturer to probation officers, court of special sessions, September 1959 to September 1961.

(10) Staff drug addiction services, Metropolitan Hospital; associate attending, Flower Fifth Avenue Hospital; instructor in psychiatry, New York Medical College, September 1960 to June 1963.

(11) Psychiatric consultant, NIMH; grant to study drug addiction in the U.S. Army, July, August 1962.

(12) Psychiatric consultant to the Synanon Foundation, August 1962 to June 1964.

(13) Consultant: Probation Department, Kings County, New York State Supreme Court; consultant, Halfway House Daytop Lodge for Drug Addiction, June 1962 to March 1966.

(14) Psychiatric consultant to the Girls Service League of New York City, May 1963.

(15) Consultant therapist for youth and work project of the YMCA Vocational Service Center in Bedford-Stuyvesant, Brooklyn, February 1965 to February 1966.

(16) Consultant and therapist for the restoration of young through training program: A program conducted in cooperation with the New York City Department of Correction, March 1965 to September 1965.

(17) Cofounder and medical-psychiatric director of Daytop Village, Inc. (a nonprofit therapeutic community and an extension of Daytop Lodge). By January 1970, 300 people in four physical facilities and four outpatient (SPAN) facilities.

(18) Consultant BAN/-BAN/LSD (barbiturates, amphetamines and narcotics), 1965 to 1968. An ODP clinic, supervised by the New York State Supreme Court, Department of Probation, 2d Judicial District.

(19) Temple Medical School, clinical assistant professor of psychiatry, July 1967 to date.

(20) Group relations Ongoing Workshops, member of board of advisors and chief, psychiatric services, 1968.

(21) Board of consultants, Country Place, Warren, Conn.

(22) SANE, board of consultants, 1968.

(23) Board of directors, Spruce Institute, Philadelphia, Pa., 1967 to date.

MEMBERSHIPS

(1) New York County and State Medical Association, 1953.

(2) American Medical Association, 1953.

(3) American Psychiatric Association and District Branch, 1952.

(4) Medical Correctional Officers' Association, 1963.

(5) American Society of Psychoanalytic Physicians, 1958 (president, 1966 to 1967).

(6) Association for the Advancement of Psychotherapy, 1962.

(7) Pan-American Medical Association, 1967, member of the council in the section on psychiatry, January 15, 1969.

(8) Member, Royal Society of Health, 1969.

(9) American Public Health Association.

PUBLICATIONS

Book

"So Fair A House," the story of Synanon, Prentice Hall, 225 pages, December 5, 1963.

Articles

(1) "Suicidal Gestures in Occupational Personnel on Okinawa," U.S. Armed Forces, Medical Journal, vol. III, No. 12, December 1962.

(2) "Intramural Psychiatric Service in a Public High School." New York State Journal of Medicine, vol. 56, No. 12, June 1956.

(3) "A Mental Hygiene Clinic in a High School," the School Review, Summer 1957.

(4) "Modification of Adaptational Psychodynamics Theory in the Wake of Successful Rehabilitation of the Drug Addict at Daytop Village," Physicians Panorama, October 1966.

(5) "The Marathon and Time Extended Group Therapy," Current Psychiatric Therapies, 1968.

(6) "Advice To The Family Doctor," Physicians Panorama, February 1970.

(7) "Therapeutic Significance of Peer Interaction," American Public Health Bulletin, to be published.

(8) "Federal Probation."

TO BE PUBLISHED

Books

(1) "The Concept." The story of Daytop. Hill & Wang, Spring 1971.

(2) "A Scream Away From Happiness." Psychodynamic theory and process of my new identity process, an accelerated reeducation of emotion, attitude, and behavior. Spring 1971.

Chairman PEPPER. Our next witness is Dr. Gerald E. Davidson, associate director, Drug Dependency Clinic of the Boston City Hospital.

Dr. Davidson was Commonwealth fellow in psychiatry at Beth Israel Hospital in Boston and a fellow in psychiatry at Massachusetts General Hospital.

In addition to his duties at the Drug Dependency Clinic of Boston City Hospital, Dr. Davidson is an instructor in psychiatry at the Harvard Medical School.

Dr. Davidson, thank you for coming here today to share your experiences with us.

Mr. Perito, will you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Davidson, I understand you have prepared a paper on your experiences with the drug Perse; is that correct?

STATEMENT OF DR. GERALD E. DAVIDSON, ASSOCIATE DIRECTOR, DRUG DEPENDENCY CLINIC OF THE BOSTON CITY HOSPITAL

Dr. DAVIDSON. Yes, I have.

Mr. PERITO. Would you care to submit it for the record and summarize that paper for us?

Dr. DAVIDSON. I think I gave you a copy.

Chairman PEPPER. Yes, without objection the full statement will be received and will appear after your testimony. You may make such statement as you like.

Dr. DAVIDSON. The problem that Dr. Casriel referred to bugs me, too. Originally I referred several patients to Dr. Casriel's therapeutic community. These were patients who had been on methadone maintenance, or one of them had.

He told me—I said, Well, I will put them in the hospital to detoxify them.

He said, "No, you don't have to do that." He said, "I have got something that will detoxify them, we can do that down here."

So I went down to see this miracle that sounded too good to be true, then found that indeed it was true. The patient whom I referred to him first had been on large doses of methadone and had been using heroin and barbituates, as well.

At the present time he is with Dr. Casriel and doing very well.

So then I went to see Dr. Revici. Dr. Revici, as the others have told you, is a most wonderful gentleman, very kind, very fine sort of person. He informed me that it was impossible for me to use Perse in Massachusetts because it couldn't be taken outside of the State of New York, pending FDA approval.

So that what I did then was when I had patients who needed detoxification I sent them down to New York. Some of the patients were put in the hospital in New York in Trafalgar Hospital. Some of them were given medication to treat themselves with and came back to Massachusetts. I observed them during this period of time.

At first the treatment only worked equivocally because Dr. Revici was treating them as if they were on heroin with the Perse treatment, taking 3 or 4 days. Those on methadone, particularly large doses, it takes 5, 6, 7, 8 days, sometimes.

But after the treatment was modified, I found that the patients did well. They had minimal withdrawal symptoms, and what I did was to prepare a questionnaire.

Now, it is very difficult for me, under the circumstances, junkies being as irresponsible and flighty people as they are, that it is hard for me to get followup on many of these people. I have so far sent down I think about 50 patients and I have followup on about 20 of them.

In preparing the paper that I presented to you today I at that time had a followup on 12. I have found that this strange medication does do away with withdrawal symptoms to a large extent, that it depends, as Dr. Casriel pointed out, on the situation in which the patient is withdrawing. If he is in with other junkies and sitting around talking with—talking about dope, he will have withdrawal symptoms.

As Dr. Casriel pointed out, you know, I am a bigger junkie than you are, kind of phenomenon occurs. So that that sometimes happens.

But of the patients that I managed to watch closely during the period of their taking medication, I found that this is a highly successful drug.

I do feel that if you can bring this to the Food and Drug Administration that we will be able—I am preparing a program to test this objectively in Boston if and when we can get it loose from them. I suppose they have their reasons, although they do tend to move slowly. By law they are supposed to answer within a month, and I don't know really what the status is at the present time.

But I found this does work and I do feel this is a tremendous breakthrough. The problem with addiction is that—let's take an addict in Boston. I suppose we have about 10,000 or 15,000. If he has a habit of $80 a day, $100 a day——

Chairman Pepper. How much, Doctor?

Dr. Davidson. $80 or $100 a day; it is difficult to steal that much, and patients who shortchange banks—well, the banks are getting smart now. So that what you do is you sell drugs, and you sell drugs to your friends and acquaintances. That makes this such an infectious disease, that is what makes this so difficult, that it spreads like wildfire because each one teaches one. This is where we are infecting large sections of the country, all sorts of small towns out of Boston; out in Palmer they have heroin and it is becoming more and more available, whatever the efforts of the Bureau of Narcotics and Dangerous Drugs. All they have done is to serve to drive the price up, and make it more profitable. They have also, in large measure, prevented doctors from treating this disease for a long time.

They in large measure are responsible for this epidemic. We must do something to remove the addict from the streets, to remove him from the drug market. Obviously, with all the efforts of the narcotics acts and the customs service, and what have you, more and more heroin has come into this country every day. It is getting cheaper and better and our efforts must be concentrated on the addict in the street, getting him out of the market.

This is why I feel that methadone is extremely valuable. I don't have the same feelings about methadone that the previous witnesses do. But I think of it in terms of removing the addict from the drug scene. Perse has this possibility, too, and I think it is an extremely valuable and useful thing.

It also makes possible the study of addiction on the cellular level. This is the first time that they have a nonnarcotic antitoxin to the narcotic. There are techniques, for instance, for injecting this material directly into the brain, and in my hospital in Boston city they can put whatever they want to in any given area of the brain directly and this can be studied, and this Perse is a tremendous breakthrough. I certainly hope we will be able to use it very soon.

Chairman PEPPER. Well, Doctor, you said you sent about how many patients down from Boston to New York?

Dr. DAVIDSON. Between 45 and 50.

Chairman PEPPER. You can testify that about how many of those seemed to be cured or were detoxified?

Dr. DAVIDSON. A great many of them do what Reverend Massey and Dr. Casriel pointed out, that they use it to cut down on their habits.

I would say of those that I found, about one-third are clean. That is a tremendous cure.

You know, for instance, there is one patient I did send down who came back and said, "Doctor," she said, "I don't remember any more what it is like to be high. My body doesn't remember what it was like to be high on heroin."

Her roommate uses heroin, and her fiance uses heroin, and in about a month she was using heroin again.

I think that is in microcosm a good picture of the generalization. But when they told me that she didn't remember what it was like to be high, that is extremely important because, you know, once you are hooked and you have the craving, however much will power you can apply, it just isn't enough, because day after day after day it is practically impossible, people will succumb.

Everybody has a different strength of will, but everybody has his breaking point, and this is why the cure rate, so-called, in places like Lexington and any other medical treatment has been in the neighborhood of 2 percent all these years.

Chairman PEPPER. Well, Doctor, once a person, as you say, gets hooked on heroin, it is almost a living death if he can't get some relief from it.

In the first place, the fellow has got to take several shots a day, and they tell me that you might be trying to work and all of a sudden you have that impulse and you have got to get out to a restroom or some secret place and prepare yourself and give yourself that injection and all.

Dr. DAVIDSON. Right.

Chairman PEPPER. So that you are practically deprived of the ability to do any effective and sustaining work?

Dr. DAVIDSON. Correct.

Chairman PEPPER. Unless you happen to be rich enough to afford the expense of heroin addiction, you have got to steal, to run the risk of arrest, the more you do it the more likelihood you will be arrested, and then anybody who has been living a decent life in their better moments must be affronted that they have to keep on robbing and burglarizing and that sort of thing all the time, so they certainly would become aware of the fact they have become a slave to a terrible master. Once you have abused, the ordeal of getting out of it without some sort of chemical help is a terrible ordeal to endure. Once they get out of it and get freed from it, I would imagine that all of the social pressures and the desire to accommodate yourself to the good wishes of your family, to be a responsible person, all those pressures are working toward staying away from it once he has gotten off the hook; don't those things enter?

Dr. DAVIDSON. No, they don't, not in 98 percent of the people, because the body—that is called the craving, or whatever it is—operates. What you just said is true of alcoholics, too. They just don't get cured by themselves.

Chairman PEPPER. By taking this then, you remove the craving of the body?

Dr. DAVIDSON. That is right.

Chairman PEPPER. So they get a chance again to start over?

Dr. DAVIDSON. That is right.

Chairman PEPPER. Mr. Perito?

Mr. PERITO. Thank you, Mr. Chairman.

Have you had patients, Dr. Davidson, that you have sent to New York for treatment with Perse, that Perse was not effective on?

Dr. DAVIDSON. Yes, I have had several patients who say it didn't do a thing for them. I have had—let's put it this way: I would say that about 70 percent of the patients say that it is effective, that it makes—I think in the paper that you have is a copy of my questionnaire, and it is about 70 percent that say it is effective—another 20 percent say it didn't do a thing for them, and about 10 percent say it made it worse.

The one-third of them with whom this seems to be unsuccessful, as I look back on them, really weren't prepared, really weren't interested in getting rid of the narcotic habit.

Mr. PERITO. At the present time, Dr. Davidson, you are involved in a clinical operation at the Boston City Hospital; is that correct?

Dr. DAVIDSON. Yes.

Mr. PERITO. That is a methadone maintenance program?

Dr. DAVIDSON. That is a methadone maintenance program.

Mr. PERITO. Your patients are primarily ambulatory?

Dr. DAVIDSON. Yes.

Mr. PERITO. How large a group of addicts are you treating in Boston?

Dr. DAVIDSON. We have about between 430 and 450 patients in our group.

Mr. PERITO. Is that the largest methadone program in Boston?

Dr. DAVIDSON. Yes. There is only one methadone program in Boston. We have about 430, 450. There are 120 in a subsidiary clinic in East Boston, and there is a small program at Boston University which treats maybe a dozen patients.

Mr. PERITO. How is that program financed?

Dr. DAVIDSON. Entirely by the city of Boston.

Mr. PERITO. How much money do you receive from the city of Boston?

Dr. DAVIDSON. We run that clinic on somewhere near $150,000 a year.

Mr. PERITO. $150,000 to treat 400 addicts?

Dr. DAVIDSON. That is right. We are bursting at the seams. We are doing a bad job. We are afraid almost every day of some kind of catastrophe, but that is the situation; it is.

Mr. PERITO. Would you agree with the conclusions expressed by Mr. Horan insofar as the euphoric effect of methadone is concerned?

Dr. DAVIDSON. Yes and no. I think that Mr. Horan thinks he is a doctor and he isn't, and I don't think that he really deals with people. I am sorry he is not here to hear me say that.

Addicts take drugs in order to feel normal. They don't take drugs in order to be on a joyride all the time. In order to be on a joyride they take more and more.

But many of the people take drugs in order to feel normal. After they have had methadone for a while they don't get a high from it.

There is another thing that I have noticed. There are a number of patients whom we call borderline psychotics who are not psychotic and not normal, either. These people seem to do extremely well on methadone. They tend to regularize their lives, to become functional again, and it seems almost an ideal drug for them.

One boy that I spoke to, I said, "Bruce, how about quitting? You know, you have been on methadone for 6 months, 8 months."

He says, "Look, Doc, I spent some time in McLean until my family run out of money and 2 years in the Massachusetts hospital and they diagnosed me as a schizophrenic, and I found dope and methadone afterward."

He said, "Since I have been on dope I have finished high school, scholarship at the Boston Museum School, my work is winning prizes all over the place, I am a junior faculty status and I am teaching courses and I will be dammed if I will quit." I have been working with Bruce in psychotherapy and he is getting so that he is not quite so borderline any more and he is beginning to become more in control of himself and he is talking about quitting.

My feeling about methadone is that very frequently it stabilizes the situation, gets people off the street, gets them out of the drug market. It acts as a peculiar kind of tranquilizer with many people like Bruce, and buys us time. It seems to me there are a hell of a lot of things in the world worse than taking some medicine every day.

You know it is not ideal, but we are faced with a public health problem. We do not have the facilities to treat these, all of these people. If you just think about it, you know, there are millions of people in this country who every night go to—I come from Michigan and call them beer gardens. In Boston they are taverns. They go to the tavern every night and drink beer and watch color television and they stagger home and stagger to work every morning and back to the tavern at night.

We have no treatment for these people. We have nothing to offer them. Therefore, society maintains these therapeutic institutions known as breweries, and this goes on with millions and millions of people.

Dr. Casriel knows how to treat them, but he is only one man, and it is expensive and it is difficult.

So that those people who drink beer every night aren't any different than the people who are taking heroin. All too frequently when they get somebody stabilized on methadone, you know, he starts drinking, too, or taking cocaine. Methadone isn't the answer to everybody. It is not a paradise. It is not the answer to every patient. It is the answer to a lot of them, at least for a time.

The same thing is true of the therapeutic communities. My feeling is you can't fight something with nothing. So you can't take drugs away from somebody and put him in one of the commonplace communities. You substitute righteousness, and righteousness is a very powerful and delightful feeling. So that they get along fine like that.

But the number of graduates of therapeutic communities who then tend to drink too much is more than anybody would really like to talk about.

We are faced with a problem which is not just drugs, it is not just heroin. There is a problem of people whose lives are not meaningful, whose lives are unsatisfied. There is no feeling to them and their number is legion, there are millions of them and we really have to think in those terms.

So assume we get involved with the kind of thinking I think representative of Mr. Horan, if you get rid of the drugs you get rid of the problem, that is unconscionable. That is shocking.

I think I will stop here.

Mr. Pepper. That is very fascinating, Doctor, to hear you talk about it.

Mr. Mann, do you have any questions?

Mr. Mann. I get the impression that your institutional situation did not permit you to have a thorough psychiatric followup on the patients that you got back from Dr. Revici's crash program?

Dr. Davidson. Right. You see, our institutional situation is such that we can't offer anything but methadone. We operate treating 450 patients in an area which is probably a third the size of this room, believe it or not.

Mr. Mann. That is all I have.

Chairman Pepper. Mr. Steiger.

Mr. Steiger. Yes, Mr. Chairman.

Doctor, not in defense of Mr. Horan at all, but really—I heard differently than you did. I didn't hear him say anything different. The only thing, you would get a high off methadone if you were not addicted to something else. I don't know how he feels about if you do away with the drug you do away with the problem.

But I am interested, I guess, and what you are really saying is that—which seems to be, again, what Mr. Horan said—is that methadone is no panacea but it is the best we got.

Dr. Davidson. That is right. But, you see, what he talked about, you have to wait 4 years before you put somebody on methadone.

Mr. Rangel. He said two.

Dr. Davidson. Two is in the FDA guidelines. He wanted Dole's original of 4 years.

Mr. Steiger. He quoted Dr. Dole's original guidelines.

Dr. Davidson. And what in Heaven's name is somebody going to do for 4 years?

Mr. Steiger. Without getting into a debate situation, apparently he has more concern because he sees it as a much more limited view of it, he is much more concerned on hooking the innocent on methadone, I gather, which is a concern you can appreciate from his standpoint.

I would like to ask you, Doctor, New York has apparently found some way to permit the investigation of Perse. Have you ever attempted to get Massachusetts to permit it?

Dr. Davidson. No, I haven't.

Mr. Steiger. Do you know if it would be possible?

Dr. Davidson. I don't, actually. I have been waiting for Federal Commission, because they were supposed to answer within a month. I am on that application as one of the principal investigators, and I thought that would be the best way to go about it.

Mr. Steiger. If for some reason they continue to drag their feet, do you think you might investigate the possibility in Massachusetts?

Dr. Davidson. I don't know. That is interstate commerce. New York can get into it because it doesn't cross State lines.

Mr. Steiger. Manufacture it up there?

Dr. Davidson. I don't know.

Mr. Steiger. Because I want to get it to my saloons. We don't even have color TV.

Doctor, I think you indicated in Arizona they are saloons.

You indicated an awareness of the devious nature of the addict, and I think all of us, because of our vast experience of some year of reading, so we know everything there is to know, would agree with that, and therefore, don't you wonder at the Bruces who say, "Doctor, you are doing a hell of a job and I am in great shape now because of you." Does that ever occur to you that Bruce is a pretty good con man, too?

Dr. Davidson. Oh, yes; he is telling me what I like to hear. Whenever anybody tells me that I deal with him twice. But it also happens to be true.

Mr. STEIGER. Assuming that Perse is what it appears to be and you tested it to your satisfaction, would you still feel the same about methadone?

Dr. DAVIDSON. No.

Mr. STEIGER. That is what I wanted.

Was there a uniformity in the substance, itself, were you able to examine the substance on any kind of qualitative basis, microscopically or——

Dr. DAVIDSON. Well, I visited Dr. Revici a number of times. He likes Chinese food and so do I. We discussed this, but, you know, he is a kind of experimental scientist, and each dosage unit is different, so I think I noted in my paper that patients aren't treated with standard amounts and this made for some difficulty in that we must really properly evaluate this medication.

Mr. STEIGER. I see. Did you ever observe the effects on somebody who was intoxicated from alcohol?

Dr. DAVIDSON. No, I haven't.

Mr. STEIGER. Thank you, Mr. Chairman.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

On the memorandum that was furnished us, you said about 35, and I think you sent 45 to 50 patients down to Dr. Revici now, and that was effective in about 50 percent of your patients. Then you got to talking about the withdrawal and maybe I didn't catch it, but how many of these 45 or 50 have you actually witnessed, whether they experienced withdrawal symptoms, or not?

Dr. DAVIDSON. I have seen about 10 of them during the period of treatment.

Mr. WINN. And you don't have any followup on the ones that you were able to followup on? Were any of those 10—would any of those 10 be included in the ones that you were able to follow up?

Dr. DAVIDSON. Yes.

Mr. WINN. I think it is exceptionally discouraging—that is probably not the right word—that you haven't been able to follow up in one way or the other, or have a med student or someone follow up on the other patients, because really 45 or 50, I suppose to you might be very indicative of how good Perse is, but I don't think FDA or anyone would call that really a true, true test, probably as far as numbers are concerned, compared to Dr. Revici's experience.

Dr. DAVIDSON. That is true; but I just don't have the facilities for doing it. I have to depend on the patient coming back.

Mr. WINN. I think it would enter into the overall picture whether they are detoxified, or it would give me a better idea if you had a hundred out of a hundred. When we send out a questionnaire to 150,000 people, if we got only 12 answers back we wouldn't feel like we got a total picture.

Mr. RANGEL. Will Mr. Winn yield?

Mr. WINN. Yes.

Mr. RANGEL. I think the evidence submitted by the doctor here was merely supportive of what had already been submitted by Dr. Revici. So I do believe that he has much more followup of the type that certainly I would be looking for rather than just relying on this.

Mr. WINN. I think the question, Charley, is there seems to be a little discrepancy in the testimony of this afternoon, of whether there really is a withdrawal symptom with Perse.

Mr. RANGEL. Well, I didn't find a conflict. It did seem to be that if you were comparing the sniffles and red eyes with what is really a tragic human experience to see someone actually going through withdrawal, that one can say that Perse does all that it is claimed to do in the area of detoxification.

Mr. WINN. I would say the symptom was negligible, but there was a little deviation.

Mr. RANGEL. I say, I haven't heard any drug addict with their propensity to enlarge the agony they have gone through as a result of an inhuman society. I haven't heard any drug addict claim that life was better for him in the area of withdrawal than it actually was.

In the area of Perse I think most of them would like to believe, from my experience, they have gone through horrendous experiences and now they are clean and decent citizens, but most of them made it apparently, relatively simply as a result of Dr. Revici's clinic.

Mr. WINN. Dr. Davidson says that Dr. Revici often changes the dosage units in the mix of his drug which might be one of the problems over at FDA right now, I don't know. I am not defending them for their being so slow, but it is possible they have run into this variation.

Did you run into that?

Dr. CASRIEL. He is a perfectionist. He would like to have one tablet given and that is all you would need. He has been modifying the thing over the years. Some work a little bit better. I don't see any difference. I give you a general clinical opinion of 14 months with about a hundred people. There is barely any side effect. There is no problem in withdrawing.

Mr. WINN. But in this difference in the mix, is it mainly in the tablet or in the liquid?

Dr. CASRIEL. If you read my original paper, the first four kids I gave it to I got a guy who complained he suffered headaches. We went back, and he said we added too much sulfur. We took out some sulfur. Since that time we have had no trouble. Since that time he adds a little more peroxide, regardless of what I did.

Mr. WINN. You might not want that in the record.

Dr. CASRIEL. The thing is basically since our first four kids he has reduced the sulfur content and sometimes he eliminates it and sometimes he puts it in.

The clinical application is that these kids withdrew without any of the undue side effects.

Mr. WINN. Were most of the patients that you sent down there what we call kids, under 21?

Dr. DAVIDSON. No.

Mr. WINN. Over 21?

Dr. DAVIDSON. Yes.

Mr. WINN. Well. I have asked the question before: What are we talking about percentagewise in blacks and whites and Spanish-Americans, just roughly?

Dr. DAVIDSON. I would say that is was about 70 percent white, 30 percent black. I would say about 80 percent over 21.

Mr. WINN. Dr. Rosen.

Dr. ROSEN. I just wanted to answer the question about the alcoholism if you wanted to know about the withdrawal from that.

Withdrawal from alcohol is much more life-threatening. If you have a patient who has experienced that once, you can expect that in the next withdrawal from alcohol they would again have at least that much in terms of convulsions and delirium tremens.

In my experience, and among that I have had about seven, I would say, who have had previous delirium tremens and convulsions in alcoholic withdrawal, and each one of those went through the withdrawal without even the shakes, which was unbelievable to me.

Mr. WINN. Dr. Davidson, you have had no experience with alcoholism?

Dr. DAVIDSON. No.

Mr. WINN. Thank you, Mr. Chairman.

Chairman PEPPER. Is that all?

Mr. Sandman.

Mr. SANDMAN. No questions.

Mr. BLOMMER. No questions.

Mr. RANGEL. No questions.

Chairman PEPPER. Mr. Davidson, we are very much indebted to you for coming and giving us the benefit of your experience as a man of thought in the profession and what you have had to say is of great interest.

(The study previously referred to follows:)

[Exhibit No. 15]

RESULTS OF PRELIMINARY PERSE STUDY

In the past few months Dr. Davidson, associate director of the Boston City Hospital Drug Abuse Clinic, has sent approximately 30 people to New York to undergo withdrawal from heroin and/or methadone with Perse, a new, non-addictive drug. The patients were given a series of daily injections and oral dosages of Perse by its inventor, Dr. Emanuel Revici. The treatment lasted approximately 5 days with varied, but overall encouraging results. Upon their return to Boston those patients that could be reached were asked to fill out a questionnaire involving the effect of Perse on various withdrawal symptoms and the overall success of the new "cure" for opiate addiction.

Out of all the subjects involved in this particular study only 12 filled out this form. Ten of these had undergone drug withdrawal before. Four were addicted to heroin only at the time. (One patient underwent Perse therapy twice—the first time withdrawing from methadone, the second from heroin—and filled out a form for each experience.) Eight patients were on both heroin and methadone, methadone only, or another similar opiate. The majority of the patients recorded "slight" or "moderate" overall withdrawal symptoms experienced with Perse; only three recorded that the symptoms were "bad."

The following is a runthrough of the individual responses to the specific symptoms experienced both with and without Perse recorded in the questionnaires:

The "runnning nose" withdrawal characteristic was quite diminished with Perse, and recorded by most as "bad" without Perse.

"Diarrhea" varied from "none" to "moderate" with Perse (with only one exception in which it was noted as "bad") and from "moderate" to "bad" without (with only one exception in which there was "none").

"Vomiting" was recorded by four patients as being "moderate," by the rest as "none" with Perse; by three as "bad" or "moderate," and the rest as "none" without Perse.

Four patients found "leg pain" "bad," three "moderate," and the rest "none" with Perse; five found it "bad" and the rest mostly "moderate" or "slight" without Perse.

"Stomach cramps" were found to be generally "slight" with only one "bad" with Perse; and "moderate" or "bad" with one "none" without it.

The "no sleep" symptom varied a lot with Perse—three "bad." three "none," the rest "moderate"; without Perse—generally "bad" or "moderate."

The sympton of "irritability" varied also with about six patients recording "none," two "bad," the others "slight" or "moderate" with Perse; while the majority noted the symptom as "bad," with the rest "moderate' or "slight," without.

With Perse "tension and nerviousness" was recorded by most as "bad" with some "moderate" or "slight" and one "none." Without Perse, all put down "bad" with the exception of one "slight."

"Craving" seemed notably diminished with Perse, the majority recording "none." Without it, the symptom was noted by most as "bad."

In answer to the last symptom, "tiredness," seven recorded it as "bad" with three "slight" or "none" and two "moderate" with Perse; while eight noted it as "bad," the rest "moderate" or "slight" and one "none" without Perse.

All patients, with the exception of two, recorded that Perse made their withdrawal symptoms better. The two that differed said that Perse had "no effect" and were, incidentally, addicted to rather high daily dosages of methadone. Methadone addicts have been found to require a longer period to withdraw than do heroin addicts. Most likely the chances of a successful withdrawal for these people would have been greater if the perse therapy had been continued over a longer period of time.

In response to the question involving the overall success of withdrawal on Perse the majority of the patients said that it was indeed "successful," with two stating that it was "partially" so and two that it was "not successful." Again, these last two were addicted to methadone and probably needed more time which this particular study was not set up to give.

Many of the users involved remarked verbally as well as in the questionnaire that they were struck by the fact that they experienced "no craving" for dope on Perse. One girl mentioned that she "forgot what it was like to be stoned." That perse seems to block off the craving for drugs in most people is an important attribute. This craving or the desire to return to drugs after experiencing the usual withdrawal distress and being clean is the result of "complex rationalizations which are difficult for the nonaddict to understand." [1]

A person assumes several different attitudes as he becomes addicted to drugs: He sees himself as an addict: he desires to increase his dosage; he is constantly dependent on the drug; and he sees the drug as a kind of panacea and various moral taboos wear off as the immediate beneficial effects of the drug become realized. Inherent in all this is a "reversal of effects" [2] in which the opiate "originally foreign to the body, becomes intrinsic" [3] as the union between it and the brain cells grows stronger. It becomes a nutritive element—a "means of carrying out the business of the entire organism." [4] This reversal occurs gradually and permiates deeply.

Drug addiction itself and the accompanying attitudes are all the result of the user's awareness and fear of withdrawal distress. Even after "successful" withdrawal these attitudes, although formed as a result of withdrawal distress, persists independent of it. Therefore the fact that perse seems to block off the desire for opiates is of considerable value in the face of the deep seated, somewhat irreversible nature of drug addiction.

There were problems encountered in the study which revealed the need to "tease out" psychological from physical withdrawal symptoms. Strangely enough, withdrawal symptoms have been known to reoccur in some after a year of abstainence from narcotics. Perhaps a double-blind study would solve some of the problem in separating the psychological from the physical and help evaluate perse.

Certain patients involved in this pioneer study were not psychologically ready to withdraw from their addiction. Obviously a study of this kind can only be useful to addicts who are ready for it. Perhaps a preliminary preparation of patients involved in further perse studies would somewhat insure their readiness to undergo withdrawal and to respond as objectively as possible.

---

[1] Alfred R. Lindesmith, "Opiate Addiction"; (Principia Press of Illinois, Inc., 1957) p. 123.

[2] Ibid., p. 29.

[3] Ibid., p. 29.

[4] Ibid., p. 29.

The Perse experiment also revealed the need for a standardized environment conducive to drug withdrawal. Some patients were placed together and left on a "ward" with nothing to do but dwell on their symptoms; while others had to find their own accommodations outside and report to Dr. Revici daily. Withdrawal patients need people around them. Patients left alone have been known to suffer longer distress. A supportive staff would help to guide and encourage the patients in their individual interests and activities; to maintain a therapeutic atomisphere conducive to both psychological withdrawal from the whole drug milieu and physical withdrawal from the drug itself.

Again, in order to receive pertinent, cogent results from a study like this the environment must be standardized and rehabilitative. The dosages of the Perse administered must also be standardized according to the extent of the individual patient's addiction. Because of the preliminary nature of this experiment these things were not fully accomplished. Different dosages were given to different patients, the extent of whose addiction was not often clear. Some people needed more than the allotted time for withdrawal as has been pointed out. A fixed potentcy and a definite schedule should be maintained in relation to each patient.

Enough followup information on each subject involved is also important if there are accurate, cumulative results to be gained. All of the patients were not able to be located following the study and less than half filled out the questionnaire needed in this evaluation.

That there is a definite need for a more solid, clear method to be followed for future studies with Perse is obvious. Preliminary preparation of patients, a rehabilitative environment, a supportive staff, standardized dosages of Perse, and extensive followups of each subject would all help in revealing more clearly the merits of Perse. But regardless of the beginning nature of this study and its often varied results, it is obvious that Perse causes a definite altering of withdrawal distress. Indeed, many heroin addicts reported complete success with Perse; and the overall effect of the drug on those addicted to methadone —a notoriously difficult drug to kick—were encouraging enough to warrant more extensive study. Methadone itself has been proven to be a very beneficial tranquilizer to heroin addicts of certain temperaments. Its only drawback is that it is addictive. If Perse could solve this problem methadone could be used more freely in drug therapy.

This preliminary study with Perse has revealed the strong possibility that a nonaddictive cure for narcotics addiction has been discovered. The dilemma of addiction becomes more urgent every day and this new medication could possibly be a cure. This in itself is enough to warrant more extensive tests of Perse.

PERSE STUDY

Name ______________________________

Date of treatment ______________________________

Date of this report ______________________________

Have you ever withdrawn before? Yes ________ No ________

Drugs used when Perse started:

Heroin ________ How much ________

Methadone ________ How much ________

Other ________ How much ________

Symptoms during withdrawal:

1. None _____ 2. Slight _____ 3. Moderate _____ 4. Bad _____

	With perse				Other times			
Running nose	1	2	3	4	1	2	3	4
Diarrhea	1	2	3	4	1	2	3	4
Vomiting	1	2	3	4	1	2	3	4
Leg pain	1	2	3	4	1	2	3	4
Stomach cramps	1	2	3	4	1	2	3	4
No sleep	1	2	3	4	1	2	3	4
Irritability	1	2	3	4	1	2	3	4
Tension, nervousness	1	2	3	4	1	2	3	4
Craving	1	2	3	4	1	2	3	4
Fatigue tiredness	1	2	3	4	1	2	3	4

Perse injections made symptoms Better________ Worse________ No effect______

Withdrawal Successful________ Partially________ Not________

Chairman PEPPER. That concludes the hearing for the day and we wish to thank all the witnesses and the members of the committee for the patience they have shown.

We will recess until 10 a.m., June 2, in room 2325.

(The following statement was received for the record.)

[Exhibit No. 16]

STATEMENT OF WILLIAM T. BEAVER, M.D., ASSOCIATE PROFESSOR, DEPARTMENT OF PHARMACOLOGY, GEORGETOWN UNIVERSITY, SCHOOLS OF MEDICINE AND DENTISTRY

It has come to my attention that the Select Committee on Crime has solicited testimony regarding the impact on medical practice of banning all imports of opium and opium alkaloids into the United States and the feasibility of completely substituting synthetic narcotic analgestics for those opium alkaloids and their semisynthetic derivatives currently in medical use. Because such a move would have a very substantial impact in certain areas of the practice of medicine and the conduct of medical research, and because you re contemplating making certain very widely used and long accepted drugs totally unavailable for the treatment of pain and other illness, it is, of course, fundamental that you consider a broad sampling of medical opinion and practice.

For the past 8 years I have been engaged in extensive controlled trials of analgesics in cancer patients and patients with postoperative pain to compare the therapeutic efficacy and side effect liability of a large number of naturally occurring and synthetic analgesics. I have published both the results of these studies and general review articles on the clinical pharmacology and relative therapeutic merit of these drugs. Simultaneously, I have been involved either directly or on a consulting basis in the day-to-day management of pain problems in thousands of patients with severe pain, predominantly due to advanced cancer. I have lectured extensively to medical students, hospital house staffs, and groups of medical practitioners on the optimal use of analgesics in the management of pain. In addition, I have served as a consultant to many governmental and nongovernmental agencies in this subject area, and am a member of the Panel on Drugs for the Relief of Pain of the NAS–NRS Drug Efficacy Study. I am therefore deeply interested in the substance and outcome of these hearings.

After reading several statements presented to your committee in April, I feel that insufficient emphasis has been placed on the significance, indeed the present indespensability, of some of the opium derivatives in the optimal therapy of patients with particular types of painful and nonpainful conditions. While it is true that the development of a variety of totally synthetic analgesics and antitussives over the course of the last 30 years has freed us from a total dependence on opium imports in the event of a national emergency, and while it is true that certain of these totally synthtetic compounds may be freely substituted for naturally occurring compounds in specific clinical situations and may in fact be drugs of choice in preference to naturally occurring compounds of some of these situations, it is by no means the case that such a substitution can be made in all clinical situations without patients suffering some or perhaps even serious detriment.

Among analgesics, none have properties which are entirely identical. They very in their potency, in the maximal analgesia obtainable by doses which have been proven safe, and in the speed of onset and duration of their action. Some are very much more effective than others when administered by mouth, while a tendency to irritate tissues sets practical limits to the size of the dose of certain drugs which may be injected hypodermically. The potent analgesics differ in their effect on mood, their tendency to produce sedation, their abuse liability and the pattern of their side effect profiles. Many of the newer synthetic agents have never been used to an adequate extent in certain special patient populations (e.g., children, women in early pregnancy, tolerant patients requiring very high doses of narcotics or patients concurrently receiving certain potentially interacting medications) to establish their relative safety under these circumstances. Likewise, there are certain clinical situations where only a single drug seems ever to have been given a careful therapeutic trial. For example, morphine is so extensively and universally used in acute pulmonary edema that there is little evidence to indicate whether other narcotics would prove effective in this condition. While none of the natural or synthetic analgesics could be classed as very expensive drugs, there are cost differtnials which may be significant. Finally, patients exhibiting allergic or idiosyncratic reactions to one narcotic may tolerate another without difficulty, a fact which alone would seem to justify having a variety of alternative agents available.

In view of the fact that numerous totally synthetic analgesics and antitussives have been available for many years and have been very heavily promoted to the practitioner by the pharmaceutical industry, the continuing reliance of the physician on opium alkaloids in particular clinical situations cannot simply be ascribed to therapeutic conservatism. On the contrary, there is, if anything, a general tendency for the physician to embrace the use of a new drug somewhat prematurely in the hopes that it will provide a therapeutic advantage over the drug or drugs which he had been previously prescribing. Drugs which have withstood the test of time such as digitalis glycosides, penicillin, atropine, the barbiturates, aspirin, morphine, and codeine have done so because both controlled scientific experiments and vast clinical experience have shown them, in competition with newer agents, to be drugs of choice in certain clinical situations.

The very existence of a substantial body of clinical and experimental information about a drug greatly enhances the value of this drug in rational therapeutics, because it delineates the full spectrum of a drug's therapeutic possibilities, defines precisely those situations in which the agent may be of particular value, and by forewarning the physician, minimizes the likelihood of the occurrence of unexpected adverse effects. The published world literature on morphine, and to a lesser extent on codeine and nalorphine, substantially exceeds that available for any of the total synthetics. If these agents were to be made unavailable, the physician, and hence the patient, would loose the benefit of medicine's vast collective experience with these drugs. Furthermore, since it is impossible for any individual physician to become equally expert in the use of all available drug therapies for every disease or symptom he treats, good medical practice dictates that the physician become thoroughly familiar with and proficient in the use of a few of the many drugs usually available for the treatment of a particular problem. Then, in the absence of an overriding consideration to the contrary, he restricts his prescribing to those agents with which he has had the most extensive personal experience, an approach which favors the most judicious adjustment of dosage regimen and provides optimal therapeutic benefits while minimizing the omnipresent risk of adverse effects to therapy. Great numbers of physicians routinely use opium derived narcotics and antagonists as drugs of first choice in many clinical situations, and have developed confidence and have become proficient in the use of these specific agents. If these drugs are now to be outlawed, the patient may suffer not only by having a less well understood and investigated agent substituted for one whose therapeutic potential and adverse effects have been more thoroughly explored, but also because his physician has been deprived of the therapeutic tools with which he is most familiar.

In addition to its deleterious effect on patient care, the proposed ban would have a most unfortunate impact on both basic and applied research in such areas as the development of superior analgesics, investigation of the mechanisms involved in the action of analgesics and narcotic antagonists, investigation of the mechanisms involved in the development of tolerance and psychic and physical dependence on narcotics, and efforts to use antagonists such as naloxone (derived from the opium alkaloid thebaine) as treatments for narcotic addiction. Research in certain of these areas would be substantially impeded and in others rendered altogether impossible.

Much of the problem derives from the fact that morphine, codeine and nalorphine have consistently served as standards of comparison for agents in their respective classes, and have generally served as prototypes and tools in exploring the general pharmacology of narcotics and narcotic antagonists. If these agents were made unavailable, a vast body of experimental data which has thus far been accumulated in the world literature would be rendered obsolete. It would therefore be impossible to make an orderly progression along many lines of research without completely repeating masses of old experiments substituting synthetic compounds for the naturally derived alkaloids originally used. Even if small amounts of natural alkaloids continued to be available strictly for research purposes, the value of future work with them would be substantially vitiated because experimental studies depending on these agents would be deprived of any clinical relevance. There would likewise be absolutely no incentive for the pharmaceutical industry to explore such currently fruitful areas as the thebaine derivatives in search of potential nonaddicting analgesics or antagonists with a potential for use in the treatment of drug dependence.

SPECIFIC DRUGS

The proposed ban would make the following drugs, all of which have some currently recognized therapeutic use, unavailable for legitimate medical use in the United States:

opium
paregoric
morphine
papaveretum (Pantopon)
hydromorphone (Dilaudid)
oxymorphone (Numorphan)
nalorphine (Nalline)
naloxone (Narcan)
codeine
dihydrocodeine (Paracodin, etc.)
hydrocodone (Hycodan, etc.)
oxycodone (Percodan)
papaverine
noscapine
thebaine (not used medically as such, but vital for synthesis of other agents).

While I am inclined to regard only four of these drugs (morphine, codeine, nalorphine and naloxone) as of fundamental importance in medical practice and research, certain of the others are extensively prescribed and have particular properties which render them useful in special circumstances. For example, oxymorphone and hydromorphone are the only potent analgesics available in the form of suppositories, a dosage form which has special use in patients with chronic pain, particularly in a geriatric population; unlike most narcotic analgesics, the codeine congeners (dihydrocodeine, hydrocodone, and oxycodone) are characterized by a high level of efficacy when administered by the oral route; paregoric is probably the most widely used drug for the treatment of diarrhea.

MORPHINE

Morphine was isolated from opium in 1803 and in the intervening years, many semisynthetic derivatives and totally synthetic compounds have appeared to challenge its therapeutic primacy. While several of these have characteristics which recommend their use under certain circumstances, none have been shown to be generally superior to morphine in the relief of severe pain. Indeed, morphine is frequently used when other analgesics are not effective, and is the mainstay of therapy in the very severe pain associated with acute visceral colic, myocardial infarction, severe postoperative pain and pain associated with severe injuries, and the pain of terminal cancer. I am especially concerned with the impact of making morphine unavailable for those unfortunate patients with the very severest sort of pain.

There are many clinical situations in which one or more of the synthetic potent analgesics such as meperidine, methadone, levorphanol and the recently developed antagonist-analgesic, pentazocine (Talwin) may be substituted for morphine. The major problem in using these agents as substitutes for morphine generally appears in patients with very severe pain who would require higher than ordinary doses of morphine for its relief. In contradistinction to our knowledge concerning the effects of high doses of morphine, very little information is available concerning the effect of very large parenteral doses of any of these synthetic agents. It is known that doses of over 150 milligrams of meperidine may lead to convulsions, a complication not encountered with morphine. When the dose of injectable pentazocine is pushed to 60 milligrams and beyond, the instance of psychotominimetic side effects increases substantially. Again, this is not an adverse effect noted with morphine. While no specific unusual untoward effects of high doses of levorphanol or methadone have been reported, experience with doses of these two agents equivalent in analgesic effect to more than 10–15 milligrams of morphine is very limited. Therefore, while these agents may be satisfactory substitutes in these higher dose ranges, such doses are not recommended in the labeling. High doses of methadone and levorphanol are often associated with an appreciable incidence of tissue irritation, and their use by the intravenous route is not recommended. Even less experience is available concerning the effects of high doses of such other morphine substitutes as phenazocine and anileridine.

Meperidine and its congeners are superior to morphine for use in labor and delivery because their rapid onset and short duration of action minimizes the risk to the newborn infant. They are also often used postoperatively, as adjuncts to anesthesia and as analgesics in brief painful procedures. However, this same property of rapid onset and short duration of action constitutes a liability when the physician wishes to treat persistent pain.

As noted above, various of the synthetic morphine substitutes have limitations in terms of a lack of knowledge concerning their effects in one or another of certain special patient groups such as children, women in early pregnancy and patients concurrently receiving certain other potent medications. For example, individuals being treated with monoamine-oxidase inhibitors have experienced fatal reactions when given ordinary therapeutic doses of meperidine. This reaction does not seem to occur in such patients when morphine is used as an analgesic, and morphine is therefore the recommended potent analgesic in this group of patients.

With the exception of pentazocine, all of the potent synthetic narcotics have an abuse liability comparable to that of morphine. Indeed, meperidine has proven much more of an abuse problem than morphine in doctors, dentists, nurses and other paramedical personnel, probably because of a mistaken impression that it is "safer" than morphine in this respect.

As a research tool, morphine has been utilized as the standard of comparison in virtually all of the modern controlled trials of analgesic efficacy and side effect liability involving semisynthetic and totally synthetic potent injectable analgesics. It has likewise been used at the Addiction Research Center in Lexington as the standard for evaluating the abuse liability of these agents. These comparative studies form the backbone of our knowledge concerning the relative therapeutic merits and liabilities of every single potent analgesic currently available. The continuing availability of morphine as a standard of comparison is absolutely essential if the quest for more effective and safer potent analgesics is to progress unhindered.

Morphine has likewise been used as the primary tool in the vast majority of studies of clinical and animal pharmacology aimed at elucidating the mechanism of action of narcotic analgesics and the interaction of these substances with narcotic antagonists. Morphine is so generally accepted as the prototype potent analgesic that teaching medical students and young physicians the pharmacology and rational use of these drugs almost invariably involves presenting a detailed analysis of the pharmacology and therpeutic properties of the prototype, morphine, followed by a briefer presentation of the ways in which the semisynthetic and totally synthetic potent analgesics differ from this prototype.

In summary, while synthetics can be substituted for morphine in the majority of patients requiring a potent analgesic, there is serious doubt as to the feasibility of making such a substitution in a significant minority of such patients. In addition, the elimination of morphine would have a major adverse effect on the progress of our research in the fields of narcotics, analgesics, and drug dependence.

CODEINE

Like morphine, codeine has been in therapeutic use for over one hundred years and is currently regarded as one of the basic or fundamental drugs in medicine. This agent is usually used orally and occupies a different therapeutic niche than morphine. Oral codeine is used in the treatment of moderate to moderately severe pain and is generally considered, with the possible exception of aspirin, to be the single most useful mild analgesic. Although codeine is present to a very small extent in opium, the demand for codeine is so great that virtually all of the available supply is synthesized from morphine. In addition to its use as a mild analgesic codeine finds extensive use as an antitussive.

Codeine has several properties which make it uniquely valuable among the narcotic analgesics. The drug has excellent oral efficacy, a property not shared by most of the other narcotics. In conjunction with this, codeine has substantially less abuse liability than agents such as morphine, meperidine, methadone, levorphanol, and the other fully potent narcotics.

Along with aspirin, codeine has served as the preeminent standard of comparison for mild analgesics. It therefore assumes a similar importance in relation to our understanding of the pharmacology and therapeutic usefulness of thee mild analgesics as morphine assumes in relation to our understanding of the potent injectionable analgesics. However, it is in the area of day-today patient care that the loss of codeine would be most acutely felt. Propoxyphene (Darvon) is the only drug currently on the American market with properties comparable to those of codeine. Propoxyphene is definitely less potent than codeine, the best available estimates indicating that 90–120 mg. of propoxyphene must be administered to equal the effect of 60 mg. of codeine. However, the maximum recommended daily dose of propoxyphene is 60 mg. four times a day whereas codeine is frequently used in doses of up to 120 mg. every 3 to 4 hours. There is little recorded clinical experiences with doses of propoxyphene above those recommended, but what experience does exist indicates that very unpleasant cumulative toxic effects appear when the total daily dose is in the neighborhood of 600 mg. On the other hand, codeine may be administered over a very wide dosage range to achieve successive increments of analgesia. The net effect of this discrepancy is that while propoxyphene, usually in combination with aspirin or other antipyretic-analgesics, is a useful analygesic in the lower range of mild to moderate pain, it usually does not produce satisfactory relief of moderate to moderately severe pain, whereas codeine is capable of doing so. Were codeine to be removed from the market, huge numbers of patients whose pain problems are currently being adequately managed with codeine would have to be given drugs with unquestionably greater abuse liability such as meperidine or methadone to achieve equally satisfactory pain relief.

Oral pentazocine has been suggested as a potential substitute for codeine as a mild analgesic. However, oral pentazocine has a decided propensity to produce psychotomimetic reactions in certain patients. While this is an acceptable risk if the alternative is the use of potent narcotics in patients with chronic pain problems, this increased incidence of adverse effects is not justifiable when the pain could be equally well managed by the usually used doses of codeine.

Codeine also has excellent antitussive activity and is generally regarded as a standard of comparison for other antitussives. The best nonnarcotic antitussive, dextromethoraphan, is not generally regarded as fully equal to codeine in antitussive efficacy, particularly in the more intractible sorts of cough problems. The unavailability of codeine as an antitussive would force practitioners to prescribe drugs with substantially greater dependence liability, such as methadone, to patients who are currently receiving satisfactory relief from the safer drug, codeine.

With the exception of those drugs discussed above I know of no other synthetic analgesics or antitussives whose safety and efficacy has been explored to such a point that they could be even suggested as potential adequate substitutes for codeine.

NALORPHINE

Nalorphine bears much the same relationship to studies of narcotic antagonists as morphine does to studies of potent analgesics. Nalorphine was the first narcotic antagonist introduced into clinical medicine and has remained the most widely used antagonist and the standard of comparison for drugs in this category. There is substantially more in the way of experimental and clinical data available concerning nalorphine than any other narcotic antagonist. I would point out at this juncture that of the three narcotic antagonists currently on the market (nalorphine, levallorphan, and naloxone) two are derived from opium alkaloids and the proposed ban would leave us with only one of these three (levallorphan) available for medical practice and research.

NALOXONE

Naloxone, a derivative of thebaine, is absolutely unique in being a narcotic antagonist of exceptional potency without any measureable agonistic activity. As such, it may eventually displace both nalorphine and levallorphan from the therapeutic scene. When administered alone to an individual who has had no prior narcotics, naloxone produced no measureable effects whatsoever. On the other hand, it is capable of swiftly and decisively reversing all of the life threatening aspects of acute narcotic overdose. It is also the only antagonist capable of reversing the respiratory depression produced by the antagonist-analgesic, pentazocine (Talwin). For the above reasons it is absolutely essential that this drug remain on the market. Although naloxone is unlikely to be used with great frequency, to those individuals who need its rather unique properties, its availability could well be a matter of life or death.

As the committee is quite aware, in addition to its use in the treatment of overdose with narcotics or narcotic-antagonist analgesics, naloxone is currently the subject of great interest as a potential treatment for narcotic addiction. The work of Fink and his associates has, I think, established that naloxone could potentially be of very great value in this population of patients. The sole problem is developing a dosage form of naloxone or a congener of naloxone which would have an adequate duration of action. The proposed ban would, needless to say, completely abort this entire promising avenue of research.

In addition to naloxone, there are a variety of other thebaine derivatives in an experimental stage. Some of these have promise as potent analgesics with reduced dependence liability while others are antagonists which may prove of value in the treatment of narcotic dependence. In addition, naloxone itself is currently serving as a very important tool in unraveling the complexities of the interaction of narcotic antagonists with narcotics and exploring certain facets of the mechanism of drug dependence.

In conclusion, I would state categorically that the proposed ban on the importation of opium with the resultant unavailability of opium alkaloids would be seriously detrimental to patient welfare and to many vital research activities in the United States. This very high price might conceivably be justified if there were substantial reason to believe that the proposed ban would definitely effect a significant reduction in the availability of illicit heroin in this country. However, consideration of the current global picture in relation to the sources and trade in illicit opium and heroin, and familiarity with the history of international efforts to control illicit opium production and the diversion of illicit opium production into illicit channels, makes it clearly evident that the proposed ban would be very unlikely to have any impact whatsoever on the availability of illicit narcotics, and might even have the effect of increasing the supply of illicit heroin by favoring the diversion of the opium currently used for medical purposes into illicit channels. In addition, efforts on the part of the Government to deprive the American people of drugs which are universally recognized as valuable in the relief of pain and other conditions, and to dictate to physicians a regimen of medical practice which will widely be regarded by those physicians as detrimental to the welfare of their patients, is certain to be strongly resented and to precipitate massive resistance on the part of medical practitioners and academicians. Most regretably, this resentment could easily take the form of a general unwillingness to cooperate in other, entirely laudable and reasonable programs designed to attack the many facets of our national drug abuse problem.

I would therefore urge that the recommendations of the committee recognize the current importance of opium alkaloids in medical practice and research, and advise against any action on the part of the U.S. Government, certainly any unilateral action which fails to insure the cooperation of opium producing countries, which would restrict the availability of these valuable substances for legitimate medical use.

(Whereupon at 4:50 p.m. the hearing was adjourned, to reconvene at 10 a.m.. June 2, 1971.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

HEARINGS

BEFORE THE

SELECT COMMITTEE ON CRIME
HOUSE OF REPRESENTATIVES

NINETY-SECOND CONGRESS

FIRST SESSION

PURSUANT TO

H. RES. 115, A RESOLUTION CREATING A SELECT COMMITTEE TO CONDUCT STUDIES AND INVESTIGATIONS OF CRIME IN THE UNITED STATES

PART 2 OF 2 PARTS

JUNE 2, 3, 4, AND 23, 1971, WASHINGTON, D.C.

Serial No. 92–1

Printed for the use of the Select Committee on Crime

Y4.C86/3:92-1/pt 2
US
976.4
UNI

U.S. GOVERNMENT PRINTING OFFICE
60-296 WASHINGTON : 1971

For sale by the Superintendent of Documents, U.S. Government Printing Office,
Washington, D.C., 20402 – Price $1.50

NORTHEASTERN UNIVERSITY SCHOOL of LAW LIBRARY

SELECT COMMITTEE ON CRIME

CLAUDE PEPPER, Florida, *Chairman*

JEROME R. WALDIE, California
FRANK J. BRASCO, New York
JAMES R. MANN, South Carolina
MORGAN F. MURPHY, Illinois
CHARLES B. RANGEL, New York
CHARLES E. WIGGINS, California
SAM STEIGER, Arizona
LARRY WINN, Jr., Kansas
CHARLES W. SANDMAN, Jr., New Jersey
WILLIAM J. KEATING, Ohio

Paul L. Perito, *Chief Counsel*
Michael W. Blommer, *Associate Chief Counsel*

APR 20 1972

225

CONTENTS

Page
April 26 — 1
April 27 — 77
April 28 — 209
June 2 — 341
June 3 — 391
June 4 — 481
June 23 — 553

ORAL STATEMENTS BY GOVERNMENT WITNESSES

Health, Education, and Welfare, Department of:
  Food and Drug Administration:
    Edwards, Dr. Charles C., Commissioner — 393
    Gardner, Dr. Elmer A., Consultant to the Director, Bureau of Drugs — 393
    Jennings, Dr. John, Associate Commissioner for Medical Affairs — 393
  Health Services and Mental Health Administration:
    National Institute of Mental Health:
      Besteman, Dr. Karst, Acting Director, Division of Narcotics and Drug Abuse — 430, 439
      Brown, Dr. Bertram, Director — 430, 439
      Martin, Dr. William, Chief, Addiction Research Center, Lexington, Ky — 435, 439
    van Hoek, Dr. Robert, Associate Administrator for Operations — 430, 439
Narcotics and Dangerous Drugs, Bureau of:
  Ingersoll, Hon. John E., Director — 344, 439
  Lewis, Dr. Edward, Chief Medical Officer — 344, 439
  Miller, Donald E., Chief Council — 344, 439
Treasury, Department of, Hon. Eugene T. Rossides, Assistant Secretary, Enforcement and Operations — 61

ORAL STATEMENTS BY PUBLIC WITNESSES

AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes), Dr. Daniel H. Casriel, director; accompanied by Rev. Raymond Massey and Dr. Walter Rosen — 273
Brickley, Hon. James H., Lieutenant Governor, State of Michigan (on behalf of Gov. William G. Milliken) — 614
Brill, Dr. Henry, director, Pillgrim State (N.Y.) Hospital — 51
Carter, Hon. James, Governor, State of Georgia — 608
Casriel, Dr. Daniel H., director, AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes) — 273
Chambers, Dr. Carl, director, division of research, New York State Narcotic Addiction Control Commission — 558
Davidson, Dr. Gerald E., associate director, Drug Dependency Clinic, Boston City Hospital — 322
Drug Dependency Clinic, Boston City Hospital, Dr. Gerald E. Davidson, associate director — 322
DuPont, Dr. Robert L., Director, District of Columbia Narcotics Treatment Administration — 143
Eddy, Dr. Nathan B., Chairman, Committee on Problems of Drug Dependence, Division of Medical Sciences, National Academy of Sciences-National Research Council — 29
Gearing, Dr. R. Frances, associate professor, division of epidemiology, Columbia University School of Public Health and Administrative Medicine — 105
Georgia, State of, Gov. James Carter — 608

Page
Gollance, Dr. Harvey, associate director, Beth Israel Medical Center 239
Hesse, Rayburn F., special assistant to the chairman, Federal-State relations, New York State Narcotic Addiction Control Commission 558
Holden, William, department head, MITRE Corp 80
Holton, Hon. Linwood, Governor, Commonwealth of Virginia 594
Horan, Robert F., Jr., Commonwealth attorney, Fairfax County, Va 255
Illinois Drug Abuse Program, Dr. Jerome H. Jaffe, director 210
Institute of Applied Biology, Rev. Raymond Massey 273
Jaffe, David, department staff, MITRE Corp 80
Jaffe, Dr. Jerome H., director, Illinois Drug Abuse Program 210
Jones, Howard A., commissioner, New York State Narcotic Addiction Control Commission 558
Kramer, Dr. John C., assistant professor, department of psychiatry and human behavior, department of medical pharmacology, University of California (Irvine) 642
Kurland, Dr. Albert A., director, Maryland State Psychiatric Research Center 505
McCoy, William O., Maryland State Psychiatric Research Center 506
Maryland State Psychiatric Research Center:
  Kurland, Dr. Albert A., director 505
  McCoy, William 506
  Taylor, Robert 507
Massey, Rev. Raymond, Institute of Applied Biology 273
Michigan, State of, Lt. Gov. James H. Brickley (on behalf of Gov. William G. Milliken) 614
MITRE Corp 80
  Holden, William, department head.
  Jaffe, David, department staff.
  Yondorf, Dr. Walter, associate director, national command and control division.
Narcotics Treatment Administration, District of Columbia, Dr. Robert L. DuPont, Director 143
New York State Narcotic Addiction Control Commission:
  Chambers, Dr. Carl, director, division of research 558
  Hesse, Rayburn F., special assistant to the chairman, Federal-State relations 558
  Jones, Howard A., commissioner 558
Pennsylvania, Commonwealth of, Gov. Milton Shapp 602
Resnick, Dr. Richard B., associate professor, department of psychiatry, New York Medical College 539
Rosen, Dr. Walter, New York, N.Y 273
Seevers, Dr. Maurice H., chairman, department of pharmacology, University of Michigan Medical School 9
Shapp, Hon. Milton, Governor, Commonwealth of Pennsylvania 602
Taylor, Robert, Maryland State Psychiatric Research Center 507
Villarreal, Dr. Julian E., associate professor of pharmacology, University of Michigan Medical School 483
Virginia, Commonwealth of, Gov. Linwood Holton 594
Yondorf, Dr. Walter, associate director, national command and control division, MITRE Corp 80

EXHIBITS RECEIVED FOR THE RECORD

EXHIBIT NO. 1

American Medical Association, Dr. Richard S. Wilbur, deputy executive vice president, letter dated July 9, 1971, to Paul L. Perito, chief counsel, Select Committee on Crime 16

EXHIBIT NO. 2

Seevers, Dr. Maurice H., chairman, department of pharmacology, University of Michigan Medical School, curriculum vitae 22

EXHIBIT NO. 3

Defense, U.S. Department of, Dr. Louis M. Rousselot, Assistant Secretary, Health and Environment, letter dated June 28, 1971, to Chairman Pepper, with attachments 24

EXHIBIT NO. 4 (a) AND (b)

Eddy, Dr. Nathan B., Chairman, Committee on Problems of Drug Dependence, Division of Medical Sciences, National Academy of Sciences-National Research Council: Page
- (a) Prepared statement ---- 40
- (b) Curriculum vitae ---- 42

EXHIBIT NO. 5 (a) AND (b)

Brill, Dr. Henry, director, Pilgrim State Hospital, New York, N.Y.:
- (a) Prepared statement ---- 58
- (b) Curriculum vitae ---- 59

EXHIBIT NO. 6

State, Department of, David M. Abshire, Assistant Secretary for Congressional Relations, letter dated July 2, 1971, to Chairman Pepper, with attachments ---- 70

EXHIBIT NO. 7

Treasury, Department of, Eugene T. Rossides, Assistant Secretary for Enforcement and Operations, curriculum vitae ---- 75

EXHIBIT NO. 8 (a) AND (b)

Jaffe, David, department staff, MITRE Corp.:
- (a) Supplemental statement ---- 101
- (b) Curriculum vitae ---- 102

EXHIBIT NO. 9

Ulrich, William F., manager, applications research, scientific instruments division, Beckman Instruments, Inc., prepared statement (dated June 27, 1970) ---- 103

EXHIBIT NO. 10 (a) AND (b)

Gearing, Dr. Francis R., associate professor, division of epidemiology, Columbia University School of Public Health and Administrative Medicine:
- (a) Paper entitled "Successes and Failures in Methadone Maintenance Treatment of Heroin Addiction in New York City" ---- 121
- (b) Position paper entitled "Methadone—A Valid Treatment Technique" ---- 138

EXHIBIT NO. 11 (a) THROUGH (e)

DuPont, Dr. Robert L., director, District of Columbia Narcotics Treatment Administration:
- (a) Article entitled "Profile of a Heroin Addict" ---- 166
- (b) Study entitled "Summary of 6-Month Followup Study" ---- 178
- (c) Brief collection of statistical information entitled "Dr. DuPont's Numbers ---- 183
- (d) An administrative order setting forth guidelines for methadone treatment ---- 183
- (e) Article entitled "A Study of Narcotics Addicted Offenders at the D.C. Jail" ---- 195

EXHIBIT NO. 12

Jaffe, Dr. Jerome H., director, Illinois Drug Abuse Program, curriculum vitae ---- 236

EXHIBIT NO. 13 (a) THROUGH (c)

Page

Gollance, Dr. Harvey, associate director, Beth Israel Medical Center:
  (a) Article entitled "Methadone Maintenance Treatment Program" 249
  (b) Letter dated May 7, 1971, to Chris Nolde, associate counsel, Select Committee on Crime 253
  (c) Letter dated Nov. 11, 1970, to Dr. Vincent P. Dole, Rockefeller University from Carlos Y. Benavides, Jr., assistant district attorney, Laredo, Tex 254

EXHIBIT NO. 14 (a) THROUGH (g)

Casriel Dr. Daniel H., director, AREBA (Accelerated Reeducation of Emotions, Behavior, and Attitudes):
  (a) Article entitled "The Case Against Methadone" 296
  (b) Article entitled "Casriel Institute of Group Dynamics, New York, N.Y." (discussion of Dr. Revici paper on Perse) 302
  (c) Submission entitled "Significant Therapeutic Benefits Based on Peer Treatment in the Casriel Institute and AREBA" 311
  (d) Introduction and explanation of the AREBA program 314
  (e) Reprint of article from the Medical Tribune-World Wide Report entitled "Therapy of Narcotic Addicts Sparks Psychiatric Theory" 315
  (f) Article reprinted from the Sandoz Panorama entitled "The Family Physician and the Narcotics Addict" 317
  (g) Curriculum vitae 320

EXHIBIT NO. 15

Davidson, Dr. Gerald E., associate director, drug dependency clinic, Boston City Hospital, study entitled "Results of Preliminary Perse Study" 331

EXHIBIT NO. 16

Beaver, Dr. William T., associate professor, department of pharmacology, Georgetown University School of Medicine and Dentistry, prepared statement 334

EXHIBIT NO. 17 (a) THROUGH (e)

Health, Education, and Welfare, Department of:
  (a) Jennings, Dr. John, Associate Commissioner for Medical Affairs, Food and Drug Administration, prepared statement 420
  (b) Edwards, Dr. Charles C., Commissioner, Food and Drug Administration, memorandum dated May 14, 1971, with attachments 422
  (c) van Hoek, Dr. Robert, Associate Administrator for Operations, Health Services and Mental Health Administration, prepared statement 430
  (d) Brown, Dr. Bertram S., Director, National Insititue of Mental Health, Health Services and Mental Health Administration, prepared statement 469
  (e) Steinfeld, Dr. Jesse L., Surgeon General, letter dated June 21, 1971, to Chairman Pepper 480

EXHIBIT NO. 18

Villarreal, Dr. Julian E., associate professor of pharmacology, University of Michigan Medical School, prepared statement 502

EXHIBIT NO. 19

Agriculture, Department Of, N. D. Bayley, Director of Science and Education, Office of the Secretary, letter dated July 23, 1971, to Chairman Pepper, re thebaine 510

EXHIBIT NO. 20

Kurland, Dr. Albert A., director, Maryland State Psychiatric Research Center, prepared statement 520

EXHIBIT NO. 21 (a) and (b)

Page

New York State Narcotic Addiction Control Commission, Howard A. Jones, Chairman-designate:
  (a) Letter dated June 22, 1971, to the committee, re summary of New York State drug report ---- 578
  (b) Prepared statement ---- 580

EXHIBIT NO. 22

Holton, Hon. Linwood, Governor, Commonwealth of Virginia, prepared statement ---- 597

EXHIBIT NO. 23

Shapp, Hon. Milton, Governor, Commonwealth of Pennsylvania, prepared statement ---- 606

EXHIBIT NO. 24

Carter, Hon. James, Governor, State of Georgia, prepared statement ---- 612

EXHIBIT NO. 25

Brickley, Hon. James H., Lieutenant Governor, State of Michigan, prepared statement ---- 617

EXHIBIT NO. 26 (a) THROUGH (f)

Letters and statements of officials of various cities regarding problems of drug abuse:
  (a) Boston, Mass., Mayor Kevin A. White ---- 628
  (b) Detroit, Mich., Mayor Roman S. Gribbs ---- 630
  (c) Hartford, Conn., Mayor George A. Athanson ---- 631
  (d) New Haven, Conn., Mayor Bartholomew A. Guida ---- 634
  (e) Philadelphia, Pa.:
    O'Neill, Joseph F., police commissioner ---- 637
    Sofer, Dr. Leon, deputy health commissioner, office of mental health/mental retardation ---- 638
  (f) Washington, D.C., Mayor Walter E. Washington ---- 640

EXHIBIT NO. 27

Kramer, Dr. John C., assistant professor, department of psychiatry and human behavior, department of medical pharmacology, University of California (Irvine), prepared statement ---- 662

EXHIBIT NO. 28

Statement submitted on behalf of S. B. Penick & Co., Merck & Co., Inc., and Mallinckrodt Chemical Works ---- 670

EXHIBIT NO. 29

Becker, Arnold, public defender, Rockland County, N.Y., statement ---- 677

EXHIBIT NO. 30

Andrews, Rev. Stanley M., Liberty Lobby, prepared statement ---- 679

EXHIBIT NO. 31

Benson, Dr. Richard S., letter dated August 4, 1971, to Chairman Pepper, re transcendental meditation (with enclosures) ---- 681

EXHIBIT NO. 32

Copy of letter sent to drug companies by Chairman Pepper re research concerning narcotic blockage and atagonistic drugs ---- 689

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

WEDNESDAY, JUNE 2, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m., in room 2325, Rayburn House Office Building, the Honorable Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Waldie, Brasco, Mann, Murphy, Rangel, Steiger, Winn, Sandman, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order, please.

The Select Committee on Crime today continues its hearings into the multiple aspects of the heroin addiction crisis in the United States. In the past, we have held hearings throughout the country, and during each of those hearings, we have heard urgent pleas for assistance. This series of hearings, which began last month, is designed to find the best ways of providing that assistance. It is my belief that the scientific and technical genius of America has not been fully enlisted in the fight against heroin addiction. I think that some officials are being less than candid in their professed dedication to fight drug abuse, for surely a nation which can send men to the moon, sustain them on the moon, and then bring them safely home, can find the means to effectively control the heroin epidemic, and find those means now.

In Vietnam, where our soldiers have the benefit of every conceivable technological device, implements of war so sophisticated that they existed only in science fiction novels a few years ago, we seem incapable of helping these very same soldiers when they become enslaved in the vicious trap of drug addiction.

So, we are sitting here this week to find out what the Federal Government and the States are doing and are not doing, what kind of research is under way, what kind of treatment and rehabilitation programs have proven successful. And, to be frank, what we heard in our hearings last month convinces me that we are not doing enough. Our scientists are working on some new and potentially breakthrough drugs to combat addiction, yet they are working on shoestring budgets. Upon reflection, it seems to me that we should not be surprised that so little has been done, but, rather, given the meager resources available to these men, that so much has been done.

I also believe that the Federal Government has not assumed its full and proper burden for combating the heroin addiction crisis. While I have no desire to preempt the authority of the States in this matter, it seems to me that, in many ways, a substantial portion of the burden of drug abuse problems must, by reason of their magnitude and scope, fall upon the Federal Government. Let me clarify that statement. I am not blaming the Federal Government for causing heroin addiction. I am not accusing Federal agents for laxity in the performance of their duties. But we must face facts. Heroin is not indigenous to this country. It is grown and processed overseas, and then smuggled into the United States. Notwithstanding the valiant and dedicated work of our customs and narcotics agents, and we commend both in the highest way, they concede that it is impossible to effectively halt the smuggling of heroin into this country. Narcotics and custom officials have told our committee that less than 20 percent of the heroin smuggled into this country is seized. It is clear that these dedicated men are faced with an impossible task. But, notwithstanding the impossibility of effectively halting heroin smuggling, it appears to me that the Federal Government must assume the burden of financing programs that combat the addiction caused by the heroin that leaks into this country.

From what this committee has heard in these hearings to date, the Federal Government has yet to take upon itself adequately, I believe, this burden. We will take more testimony on this point in the course of this week.

You may recall that in its report on heroin to the 91st Congress, this committee suggested the possibility of a ban on the importation of licit opium into the United States.

Our thinking was that the only way to halt heroin smuggling is to halt opium growing. As an admittedly long-range project, we suggested that if Congress banned the importation of licit opium, that is, morphine and codeine, other nations of the world might be willing to follow suit. Ideally, the opium-producing countries of the world might then react favorably to international suggestions to halt altogether production of the opium poppy. At the least, such a move might give our diplomatic negotiators something to point to when we press foreign nations to help us solve this problem.

We also believe that such a ban would be an effective tool for law enforcement officers. When he testified before this committee last month, Mr. Eugene T. Rossides, assistant secretary of the Treasury for Enforcement and Operations, confirmed our belief, saying that such a ban would indeed be useful.

A nation without opium derivative painkillers, of course, must seek alternative painkilling and cough-suppressing drugs. We have heard impressive testimony that powerful synthetics are now available, although opinion is admittedly divided on this point.

Our first witness today, John Ingersoll, Director of the Federal Bureau of Narcotics and Dangerous Drugs, over a year ago urged the nations of the world to redouble their efforts to find effective and completely acceptable synthetic substitutes for opium-based medicines such as morphine and codeine. At that time, Mr. Ingersoll said that the eradication of opium crops was the "only realistic, long-range solution to the heroin problem." We agree with that position, and look forward to Mr. Ingersoll's further enlightenment on this point.

Also testifying today is Dr. Charles Edwards, Commissioner of the Food and Drug Administration. The FDA has recently promulgated new guidelines for the use of methadone as a maintenance drug in addiction programs. These guidelines are designed to reduce illicit diversion of methadone from private physicians and unscrupulous clinic operators. While many experts have advised us that methadone may be the best drug we have now to treat heroin addiction, it is clear that the use of methadone has dangers of its own, and must be carefully controlled.

The rest of these hearings will deal with research underway to produce drugs better than methadone, not addictive in character and not harmful in some respects in which methadone is for treating addicts, as well as the rehabilitation of drug addicts. Although we must make a distinction between curing an addict of his addiction and reintegrating him into society, as a committee on crime, we are obviously anxious to fully explore any treatment approach which offers the hope of reducing crime in the streets and returning the addict to a productive and law abiding life.

Our earlier hearings have indicated that there are some highly promising new antiaddiction drugs on the horizon. We want to know the status of this research, the adequacy of this research, and what more, if anything, the Federal Government can do to help. We are spending, as we all know, hundreds of millions of dollars in trying to keep heroin out of this country and dealing with it once it gets into this country. If we could find some sort of a blocking drug or some sort of immunizing drug, thereby tending to take the market away from the pusher and the seller, you can see how much it would contribute to the reduction of crime.

We will question individual scientists who have worked with these new drugs, as well as the Government officials who have the overall responsibility for the Federal role in this area.

When the scientific community can talk of developing a vaccine that for a lifetime would ward off the possibility of drug addiction, I think this Congress ought to know about that research and help fund it to the fullest extent.

We are also very concerned about the state of treatment and rehabilitation facilities in the Nation. It is estimated that we have 200,000 to 300,000 heroin addicts in the United States. It is estimated that our great city of New York has perhaps a hundred thousand of them. The rest are all over the country.

So, what we want to know is what is the state of the treatment and rehabilitation facilities in the Nation? Are they adequate for the challenge? Are there enough of them? Are they properly dispersed? What techniques have succeeded and which have failed?

I think Congress wants to know the answer to these questions and must know the answer to these questions if we are to spend intelligently the taxpayers' money on these programs.

The last day of these hearings, June 23, will focus specifically on the adequacy of our treatment and rehabilitation facilities. We expect to have with us several Governors who will tell us what their States are doing to handle the addiction crisis, and what have been their successes and failures, and what they think Congress can or should do to help.

We hope these hearings will provide the muscle needed to mobilize a great nation against an epidemic that threatens to destroy us if it continues unchecked.

Now, as I said, we are very much pleased today to have as our first witness the Honorable John Ingersoll. Mr. Ingersoll is the Director of the Bureau of Narcotics and Dangerous Drugs, a position he has ably held since August 1968. Prior to his present appointment, Mr. Ingersoll served as Assistant Director of the Justice Department's Office of Law Enforcement Assistance.

From July 1966 to April 1968, he served as chief of police in Charlotte, N.C., and prior to that, as director of field services for the International Association of Chiefs of Police.

He served with the Oakland, Calif., police force from 1957 to 1961, beginning as a patrolman and advancing to investigator, supervisor, chief's aide, administrative assistant, and director of planning and research.

Mr. Ingersoll received an A.B. degree in criminology in 1956 from the University of California at Berkeley and did graduate work in the field of general public administration and criminology.

Mr. Ingersoll has recently returned from a tour of Southeast Asia to survey the state of America's efforts to curtail the smuggling of heroin into this country.

Mr. Ingersoll is accompanied today by Dr. Edward Lewis, Chief Medical Officer of the Bureau of Narcotics and Dangerous Drugs. Dr. Lewis is on your right and our left. He is also accompanied by Mr. Donald E. Miller, Chief Counsel of the Bureau.

We are delighted to have Dr. Lewis and Mr. Miller.

Mr. Perito, our chief counsel, will you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Mr. Ingersoll, I understand you have a prepared statement; is that correct?

STATEMENT OF HON. JOHN E. INGERSOLL, DIRECTOR, BUREAU OF NARCOTICS AND DANGEROUS DRUGS; ACCOMPANIED BY DR. EDWARD LEWIS, CHIEF MEDICAL OFFICER; AND DONALD E. MILLER, CHIEF COUNSEL

Mr. INGERSOLL. That is correct, sir.

Mr. PERITO. Would you care to read that statement?

Mr. INGERSOLL. If I may.

Mr. PERITO. Please proceed.

Mr. INGERSOLL. Mr. Chairman and distinguished members of the select committee, it is a pleasure once again to appear before you. Mr. Miller and Dr. Lewis are with me to assist the committee in its inquiry today and will be available to answer questions as well as myself.

At the outset, Mr. Chairman, let me thank you and congratulate the committee and its staff for its energetic and diligent efforts to investigate the circumstances of illicit drug production, distribution, and abuse. You have gathered an impressive array of information and have provided all concerned with much food for thought in your reports. Moreover, one of your members, Congressman Murphy, in collaboration with Congressman Robert Steele, has just recently added another valuable report based upon an around-the-world study mission. All of these, hopefully, will assist us in finding the way to solve the tragedy of drug abuse, particularly heroin addiction in the United States.

In January 1970, when I first represented the United States at the United Nations Commission on Narcotic Drugs (CND), I stated that only a total ban on opium production would eliminate the scourge of opiate addiction. I suggested the same thing at the second special session of the Commission in September 1970. I intend to make the point again in October of this year when the Commission meets in its 24th regular session.

I wish I could say that other members of the Commission, and indeed world opinion generally, agreed with this position. Unfortunately, that is not the case. There is no magic wand which, with a wave, can dry up all of the poppyfields and opium productions of the world. The problem is complicated by deep-rooted politico-socio-economic factors which influence both the ability and the incentive to suppress production and a geography which would preclude enforcement of such an edict in some of the most prolific growing areas. For example, in the remote wild northeastern part of Burma, or indeed in the northern mountains of Thailand where I spent some time a few weeks ago, where it is estimated, in the case of Burma, some 400 tons of opium are produced annually, the central government is not in control of insurgents who use opium production to finance their causes. The same is true in northern Thailand and, in some respects, in northwestern Laos.

Some countries, such as India, Yugoslavia, Japan, and the U.S.S.R. are opposed to a worldwide abolition on the grounds that they are controlling production and not permitting significant diversion. The Turkish Government has been trying to pass legislation to do this since 1966, but unsuccessfully. We are confident that the Turkish Government could enforce a total ban. I must add, however, that we cannot expect that success on the part of the Turkish Government will solve our own heroin problem completely. We shall still have to contend with the problem of illicit production elsewhere in the world. We are beginning to feel the effects of that production on our own population.

Other competent witnesses have told you that the substitution of opium-based drugs with synthetics is technically feasible, but they have also pointed out some practical medical problems. One is finding a substitute that provides all of codeine's characteristics—analgesic, mild sedative, and antitussive—and which is acceptable to pharmaceutical and medical practitioners. Industry has not yet been able to replicate the combination of properties that make codeine an inexpensive but highly useful drug to treat common ailments such as mid-level pain and flu. Neither has industry found the way to synthesize codeine itself, although a considerable expenditure is being invested in research to that end. Presently 90 percent of the raw opium imported into the United States is eventually used for codeine manufacture. The medical use for codeine throughout the world has progressively increased from 18 tons in 1935 to 68 tons in 1954, to 107 tons in 1962 and to 155 tons in 1969. The United States consumes about 16 percent of world production. May I add parenthetically, Mr. Chairman, that it requires about 10 units of opium to produce one unit of codeine.

It seems that there are safe and effective substitutes and synthetic equivalents for morphine, which is a severe painkiller. Indeed, some are reported to be superior for use in man. But it is equally apparent that worldwide, the medical preference for drugs derived from opium remains strong; that is, the annual increases in production and consumption are indicative. Proposals to ban opium production, worldwide, have not met with support and there is no evidence that even the American medical community would accept such a move without extensive consultations.

Nonetheless, we feel that advocacy of such a ban is a proper position. We shall also continue to work for increased international controls, particularly to control production, until complete abolition becomes a reality.

Mr. Chairman, you asked also for my views regarding methadone maintenance procedures and whether there is a black market in methadone.

In recognition of the acceptance of methadone on an investigational basis in the treatment of heroin addiction the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs jointly issued methadone maintenance regulations effective April 2, 1971.

The regulations provide for advance approval of such programs by the two agencies with a maximum amount of flexibility. The standards were agreed upon after an intensive study of many existing programs and after consultation with leading scientific authorities around the country. The regulations, if faithfully followed, insure that patients receive adequate treatment and protection, that scientifically useful data can be generated and that possibilities of diversion of the drug into illicit channels are minimized.

Each methadone program is also required to register with BNDD in order to conduct research with a schedule II substance. Our inspectional program will cover all methadone clinics on a periodic basis to insure that proper safeguards are maintained to prevent diversion. Safeguard requriments will be that methadone supplies be securely locked up with limited access; that a complete and accurate record be maintained of all methadone receipts and dispositions; and that patients be regularly monitored through urinalysis and observation to insure that they are taking the methadone dispensed to them.

I am confident that with diligent regulatory efforts by both FDA and BNDD we can effectively curtail the existing diversion problems. Where flagrant violators are uncovered, we intend to vigorously press for corrective measures.

Failure to conduct such programs within a framework of proper controls involves hazards to the individual and to society. Great caution needs to be exercised in the selection of patients for treatment because participation entails a high level of narcotic dependence which many young persons, who are only peripherally involved in the abuse of narcotic drugs, could avoid by less radical forms of treatment. We must be sure that programs of treatment are not causing more cases of methadone addiction than they are preventing continued cases of heroin addiction. We hope that longer acting substances will soon be made available. This would reduce the risks of diversion and make the whole program more attractive to the patient.

Complete cure of addicts from narcotic use has not been accomplished in any statistically significant numbers. On the other hand, once an addict is stabilized on methadone, he apparently is more receptive to reintegration into a normal, acceptable way of life in the community.

Methadone is available illicitly in many areas of the country, primarily in retail level quantities.

Our regions report an increasing trend of methadone availability and a corresponding price decrease. During the 7-month period from December 1969 through June 1970, BNDD purchases and seizures of methadone totaled 8.202 dosage units. In the succeeding 7-month period from July 1970 through January 1971, BNDD purchases and seizures totaled 33,981 dosage units. This fourfold increase reflects a disturbing trend.

The methadone we presently encounter on the street is primarily of legitimate manufacture. During the last 10 months, from July 1970 through April 1971, our laboratories have examined 217 exhibits of methadone submitted by our agents and State and local enforcement officials. This represents roughly 1 percent of all drug exhibits submitted for analysis.

Two dosage levels of commercially manufactured tablets have been encountered—the 5 and 10 milligram sizes. Some exhibits have been in an orange juice preparation, in capsules, foil-wrapped powder and in liquid form ready for injection.

The synthesis of methadone is a fairly complicated process and only two clandestine laboratory operations have been uncovered in this country in the past 20 years. One laboratory, capable of producing large quantities of methadone, was seized in Tupelo, Miss., about 2 years ago, and the other laboratory was found in New York during 1952. And we presently have one investigation involving the possibility of a clandestine methadone laboratory.

Methadone sells illicitly on average for about 50 cents per tablet. It appears to be coming from patients in maintenance programs who are selling the methadone dispensed to them, or in some instances, trading it for heroin; loose prescribing practices by some physicians account in part for the drug available on the street; there are security problems in many clinics which result in the pilferage of methadone; and there are also some instances where patients are simultaneously enrolled in more than one program and they sell the excess methadone dispensed to them.

We believe that the new regulations, while closely guarding against diversions of methadone, will at the same time allow the medical and scientific communities to continue studies to determine the extent to which methadone maintenance techniques may be used in the management of morphine-type dependence; but I emphasize again that the program depends upon the willingness of practitioners to follow reasonable guidelines and prevent diversion, and some have done a commendable job.

SOUTHEAST ASIA

As you know also, Mr. Chairman, I recently visited countries in Southeast Asia primarily involved in opium production and distribution; that is, South Vietnam, Thailand, Laos, and Burma, in addition to other Asian countries and Australia. In speaking with Government leaders of these countries, including President Thieu, I stressed the seriousness with which the U.S. Government views the ready availability of heroin in South Vietnam which is threatening our servicemen in the area and people in the United States as well. The need for immediate corrective action to suppress this illicit traffic, wherever possible, was strongly emphasized in addition to the promotion of regional and international action to deal with both short- and long-range aspects of the problem.

Earlier, I briefly touched on some of the conditions that contribute to continued opium production in the area. It is known also that insurgents protect or have an ownership interest in the refineries that process opium into morphine base and sometimes further into heroin. The typical refinery is on a small tributary of the Mekong River near the juncture of the Burma-Thai-Laos borders. It will be in an isolated area with a military defense perimeter guarding all ground approaches. Nevertheless, it is easily portable and may be moved from one section of the area to another. Although in Burma and Thailand the refineries are operated by insurgents, in Laos they are protected by elements of the Royal Laotian Armed Forces. While the management and ownership of the Laotian refineries appear to be primarily in the hands of a consortium of ethnic Chinese, some reports suggest that a senior Royal Lao Army officer may hold an ownership interest in a few of these facilities.

Most of the narcotics buyers and distributors in the tri-border area are ethnic Chinese, although they may be citizens of the countries in which they live.

While many of these buyers pool their purchases, no syndicate appears to be involved. The opium, morphine base, and heroin purchased in this area eventually find their way into Bangkok, Vientiane, and Luang Prabang, where additional processing may take place before delivery to Saigon, Hong Kong, and other international markets.

The most important processing appears to occur in the Tachilek area of Burma. But refineries throughout the border area are turning opium into the virtually pure white heroin that is widely available in South Vietnam. An increasing demand for this heroin also appears to be reflected in a steady rise in its price; $1,780 per kilogram in mid-April 1971, compared with $1,240 in September 1970.

Further, the establishment of new refineries in the last 15 months to produce 95 percent pure heroin appears due to the sudden increase of a large and relatively affluent market in South Vietnam.

This has far reaching and disturbing possibilities in addition to the immediate concern for the military user. The illicit introduction in substantial quantities into the domestic regions of the United States has already started. Heroin addicts in South Vietnam can readily support a $2 or $3 dollar-a-day habit, but they will not be able to do so when they return to the United States where it may cost $50 a day.

They will add to the ranks of our expanding addict population and resort to crime to support their affliction, if they are not treated in time.

Immediate actions that have been taken recently include the following:

(1) President Thieu has appointed a special task force reporting directly to him;

(2) Corruption at South Vietnam airports and other customs entry posts is being checked in an effort to halt the illegal importation of narcotics and other contraband;

(3) Additional BNDD agents are being assigned to augment the present staff assigned in the Far East;

(4) United States and other countries; military and civilian mailing procedures and regulations are being reexamined to tighten up loopholes in mailing privileges that might permit illicit transport of drugs;

(5) Department of Defense officials have focused their attention on improving military controls. They are initiating treatment programs within the Defense Establishment and also within the Veterans' Administration for discharged personnel.

Additional actions have been recommended which are presently being considered by higher authority.

That concludes my statement, Mr. Chairman, and I will be happy to respond to any questions that I can.

Chairman PEPPER. Just a few questions, Mr. Ingersoll. We thank you very much for your valuable statement and your bringing to us the valuable experience that you have brought.

Do I understand you to say that in the Southeast Asian area you do not find evidence of the sort of criminal conspiracy, sort of a gangster operation, which is generally assumed to be the kind of operation that brings the heroin from Turkey into this country? You do not find that same type of organized crime conspiracy bringing the heroin in from Southeast Asia that you would find, perhaps, in the relationship with the opium produced in Turkey?

Mr. INGERSOLL. No; I do not think that is what I intended to say, Mr. Chairman. I think that there is organization but it is not a large syndicated operation that we might see in the United States or in the traditional opium and heroin distribution channels.

Chairman PEPPER. Well, who are the people that are responsible for bringing heroin from Southeast Asia into Saigon and other markets and into the United States?

Mr. INGERSOLL. I think, generally, Mr. Chairman, that you can attribute most of the movement and the trade in heroin in that part of the world to the people who have traditionally carried on trade in Southeast Asia; that is, people of Chinese extraction.

Chairman PEPPER. Do you find any official condoning of it or official participation in that movement?

Mr. INGERSOLL. Oh, very definitely; yes, sir. There are a lot of people, officials of various governments, who appear to be receiving or profiting from the trade and who are protecting the trade.

As I pointed out in my statement, some government officials of these countries are directly involved, they may have an ownership interest or at least they are exacting tribute for protecting the flow.

I would also point out as I did in my statement, that there are many people who have no affiliation with a recognized government who are equally involved and in many cases the central government has absolutely no control or at least no desire to control those groups of people. There is a definite relationship.

Chairman Pepper. In general, we are giving military and economic aid to the governments where that type of corruption appears; are we not?

Mr. Ingersoll. Yes, sir.

Chairman Pepper. Does it seem that we could not put more pressure on them? If we are going to continue to give them our military and economic aid, do you think it would be effective if we put more pressure on them to insist that they try to curb this operation that is contributing so much to the detriment of this country?

Mr. Ingersoll. I think that would be effective and I can report to you, sir, that more pressure is being put on. There is a tremendous amount of activity regarding the problem on the part of all of our missions in Southeast Asia at this time.

Chairman Pepper. It would seem to me, since we have such a close relationship to, for example, South Vietnam, that we might insist they allow us to put customs inspectors or some of your agents in there with theirs to try to stop this smuggling.

Mr. Ingersoll. As a matter of fact, we have customs advisers in Vietnam and the Bureau of Customs has just added to that force in the last couple of weeks and I am adding personnel to our representation there as well.

The problem in the past has been that we have not had the proper response from the customs of South Vietnam, and again, I can report to you that in the past few weeks there has been a tremendous shakeup of the South Vietnamese Customs Service and I think that we have to watch what happens as a result of this.

Chairman Pepper. Well, I would think that in dealing with those people, giving them all the aid that we are giving them, that we would be justified in taking a very strong position in respect to those governments. They are prostituting, perverting our own men who we send over there to help them, and they are sending a stream of opium to contaminate our citizenry back to this country. It seems to me we would be justified in taking a very hard and firm line with those governments and seeing to it, if we have to participate in the enforcement program, that they do enforce these restrictions against bringing opium into this country.

Mr. Ingersoll. We have done that and we are continuing to do so. When I visited with President Thieu and the Prime Minister I was accompanied by Ambassador Bunker and General Abrams and the three of us together were as forceful as I think anybody possibly can be on the highest officials of that government.

Chairman Pepper. I notice you said here with respect to Laos that some of the Royal Laotian Armed Forces were protecting some of these people. Do you find high officials in South Vietnam and some of these other countries involved either in protecting or participating in these movements?

Mr. Ingersoll. I think it is questionable as to whether there are very high officials involved. I think that it would be at an operating level or at a functionary level for the most part. For example, one member of the South Vietnamese Legislature was apprehended coming into Ton Son Nhut with a quantity of heroin and he is still in custody. I doubt whether policymakers are involved.

I should also point out that in Laos, opium production and distribution is not restricted by law at the present time. There is no law that speaks to this in any respect. A law is in the drafting stage. It was to have been introduced into the legislature about 2 weeks ago, but I do not know whether it has passed or not. The Laotian Government consulted with us on this and we made some suggestions which would further strengthen it.

In the meantime, the Laotian national police have made some seizures, extra legally, and I think this indicates a willingness or an agreement that the government will support us. But I have to point out again, sir, that the Government of Laos is not in control of all of its territory. It is not even in complete control of some of the people who work for it, presumably.

Chairman PEPPER. Well, now, you referred also to Burma and Thailand, I believe, where there were areas that were not under the control of the government, where the opium poppy is produced and from which opium is smuggled to outside areas.

Have we offered to help them gain control over those areas? What has been the response to our offer?

Mr. INGERSOLL. Let me take them in order and start with Burma first, if I may. Burma, as you know, is a nonalined nation and particularly it resists any effort or any indication of being influenced by either the United States or the U.S.S.R. We have no assistance programs except one small one which is almost complete. We have very little economic or other transactions with Burma.

When I visited Burma, I was wearing my hat as U.S. representative to the United Nations Commission on Narcotic Drugs and I was really trying to sell those officials on accepting United Nations programs.

The results were frustrating and disappointing in Burma and I should also repeat again that Burma is a major producer of opium in that part of the world. The best that I could get from them was a response that they would consider a visit by the United Nations Secretariat on this matter.

Chairman PEPPER. What about Thailand?

Mr. INGERSOLL. In Thailand, where we have assistance programs, it was agreed that we would develop a joint working arrangement so that we could deal with the problem on two fronts. The Thai Government is extremely interested in improving the life and the economy of the hill tribes that produce most of the opium, by converting them from opium producers to the production of other crops or other ways of earning a living. This is a long range kind of a program which, in my judgment, is going to take a generation, or two, or three to achieve.

I suggested at the same time we might work together in interdicting the traffic dealing with the problem at hand, the immediate problem, and it was agreed at that time that we would work out a joint program together.

Chairman PEPPER. If we were to offer, through a concert of nations to the countries where opium is produced, a program under which their farmers who have been growing opium could grow something else and not sustain any reduction in income, would it be possible to get those governments to enforce effectively a prohibition against the growing of the opium poppy?

Mr. INGERSOLL. I think that would be the ideal solution. I think we could achieve that in Laos. I doubt that we could achieve it in Burma. And I think that proposition is part of the arrangement or part of the program that will develop with time.

Chairman PEPPER. Now, how much money have we offered and how much have we put up so far toward such a program as that?

Mr. INGERSOLL. We have not made an offer yet, because we are still developing the program, but I should say that the Thai Government has permitted the United Nations to do a survey of opium production in Thailand and it has produced a report which will call for a program which, over a period of 4 or 5 years, will be regarded as a pilot project and several of the Meo villages where opium is produced in an effort to do just that. This program is presently funded at a rate of $5 million. I do not think that the funds now available are going to be enough; additional money will be needed.

Chairman PEPPER. As I understand it, we have a United Nations special fund to deal with this problem. We committed $2 million to that fund and we put up $1 million. Germany has put up, I believe, $20,000. Have we put up $1 million?

Mr. INGERSOLL. We pledged $2 million and we already contributed $1 million.

Chairman PEPPER. Now, what other nations have pledged or made a contribution?

Mr. INGERSOLL. Well, I understand that Sweden has made a contribution in the neighborhood, as I recall, of about $30,000. Turkey has made a contribution of $5,000, and the Holy See has given $1,000.

Chairman PEPPER. How about West Germany?

Mr. INGERSOLL. West Germany has not yet made its contribution. They indicated to me that they are going to contribute a million marks, about $280,000.

Chairman PEPPER. We were up at the United Nations the other day and conferred with these United Nations narcotics representatives, the people that are directing this special fund, and they advised us that they are preparing a program now. You are our representative on that Commission; are you not?

Mr. INGERSOLL. Yes, sir.

Chairman PEPPER. Are you going to press for a larger appropriation so that we would be prepared to offer to these nations where the poppy is grown. substitute crops and equivalent income?

Are you disposed to press for that program and ask the Government and Congress for more money to press for the adoption of that program?

Mr. INGERSOLL. Yes, Mr. Chairman. The special fund was established at the U.S. initiative and certainly, we have a deep and abiding interest in seeing that the fund not only grows but that it is used effectively.

Next October, at the meeting of the Commission on Narcotic Drugs, one of the matters to be considered will be the short- and long-term programs that the Secretariat has developed as a result of the instructions from the Commission when the fund was established by resolution last fall.

Chairman Pepper. Mr. Ingersoll, would you make the best estimate that you can as to how much heroin is costing the United States today in its efforts to keep it out and the effort to stop its distribution in the United States; the crime that results from trying to get the money to buy it? What would you estimate that heroin is costing the United States a year?

Mr. Ingersoll. Well, that is a very difficult question to answer, of course. It is difficult to estimate what crime generally is costing the United States. I think that the direct costs of purchases, of the transactions in heroin, could be measured in terms of $350–$400 million, but I think when you apply all of the indirect costs, and so on, that you can increase that figure by about 10 times and if you apply it against the drains on our gross national product, I think you are talking about a drain of maybe $3 to $3½ billion.

Chairman Pepper. $3 to $3½ billion. Not to speak of the lives and the careers, the lives lost and the careers ruined and all that. So, that the United States would be justified in making a very large investment in stopping the growing of the opium poppy in the world. We could spend a lot of money toward that kind of a program and still come out way ahead, financially; could we not?

Mr. Ingersoll. I think that is true, but, of course, we always have to negotiate the willingness and the concurrence of the government of the territory concerned in which the opium poppy is grown.

Chairman Pepper. Now, what percentage of the heroin coming into this country today emanates in Turkey, or originates in Turkey?

Mr. Ingersoll. Again, Mr. Chairman, I cannot give you a precise figure because as you know, this traffic is clandestine and all we know is what we seize, what we surface. I can say that the vast majority of heroin that is consumed in the United States is produced from opium that originally was grown in Turkey.

Chairman Pepper. Now, how much money are we making available to Turkey to try to deal with this problem, to curb the production of opium or to displace the production of the opium poppy in Turkey?

Mr. Ingersoll. In the last 2 years or so we have provided a $3 million loan to Turkey.

Chairman Pepper. $3 million loan.

Mr. Ingersoll. Yes, sir; plus the value of a number of personnel from my organization and from other agencies of the Federal Government.

Chairman Pepper. Compared to the cost of the heroin that comes from Turkey to the people of this country, that is a very small amount.

Mr. Ingersoll. Yes, sir.

Chairman Pepper. Now, one other question, Mr. Ingersoll. Based on your knowledge, is opium or the proceeds from the sale of opium used to finance Communist insurgency in Burma, Thailand, Laos, and South Vietnam?

Mr. Ingersoll. The insurgency in those countries, Mr. Chairman, is not limited to Communist insurgency. As a matter of fact, I have been told that much of the insurgency in northern Thailand is motivated by farmers trying to protect their opium production.

That is a very, very confused area of the world. Nobody knows who is fighting whom half of the time and you do not know what the allegiance of any particular group is, and even if this is determined it may change from one year to another. But there is no question in my mind that there is a clear relationship between opium production and insurgency, be it for whatever purpose, political or economic motives, in those tribal areas.

The proceeds derived from opium sales are used to purchase arms and as I mentioned before, production and transportation is protected by armed militia, irregular forces, and there is a clear relationship in my judgment, between the two.

Chairman PEPPER. Just two other questions, Mr. Ingersoll.

Would you favor action by the Congress forbidding the importation of products of the opium poppy even for medicinal purposes into the United States?

Mr. INGERSOLL. Mr. Chairman, I pointed out in my prepared statement that at the present time there are some practical problems with that, and I would like to give you some statistical data, if I may, to support this point. The amount of opium imported since 1966 has been relatively stable. It is in the neighborhood of—it runs between 122 to 177 tons each year. In 1970, by including some of the opium previously stockpiled in the United States, some 200 tons of opium were placed in the extraction process. From this, almost 23 tons of morphine were extracted, and from this almost 22 tons of morphine were converted to codeine.

Codeine is the critical problem, as I mentioned in my statement and as Drs. Brill, Eddy, and Seevers mentioned in their testimony earlier. Codeine is an inexpensive, highly useful, and widely used medicine to treat a variety of ailments and I am told that there is nothing better for the symptomatic treatment of flu, for example. At the present time there is no substitute that combines all of the three principal properties of codeine; until we find that substitute or until we are able to synthesize codeine itself, then I question whether we have any choice but to continue the importation of opium.

Chairman PEPPER. Would it help you in terms of law enforcement if we did not have to bring in any legitimate products of opium to this country?

Mr. INGERSOLL. Again, Mr. Chairman, there is very little, if any diversion of opium from legitimate U.S. channels. When narcotics are found in the illicit traffic that come from legitimate sources, they are usually there because of theft or burglary or something of this nature, but the industry in this country has done a remarkable and very commendable job of keeping opium under control and keeping it within legal distribution channels. So as far as leakage is concerned, from that source, it is not a problem.

Chairman PEPPER. On the other hand, the fact that opium poppies may be grown for legitimate purposes makes it difficult to detect that part which is diverted to an illegitimate purpose in the areas where it is grown.

Mr. Ingersoll. Yes, sir; that is correct, and, of course, diversion occurs at the point of cultivation and harvest.

Chairman Pepper. Yes; now, one other question, Mr. Ingersoll. You know, this committee has pressed very hard to get the Government to impose a quota system upon amphetamines in this country, and we have called attention, as has the Interstate and Foreign Commerce Committee of the House, to the fact that some 8 billion amphetamine pills are being produced in this country every year and about half of them have been going into the black market.

We were pleased to see, therefore, that you recommended and the Department of Justice recently proposed an embargo, the quota system, on amphetamines and methamphetamines, as our amendment offered in the House last year proposed to do.

Now, we were unhappy, however, to observe that there were two substances that were left out of that proposed quota system popularly known as Preludin and Ritalin and we had the experience that Sweden has had. When they left those two substances off of the control system, immediately abuse swept to those two drugs and they had practically the same situation they had before the amphetamines were controlled.

Why did the Department of Justice, I presume on your recommendation, leave out Ritalin and Preludin from the quota system?

Mr. Ingersoll. Well, Mr. Chairman, we have given serious consideration to moving phenmetrazine and methylphenidate—Preludin and Ritalin—into schedule II. But while we recognize that these drugs have had serious potential for abuse and have been abused in other countries, we have not seen this type of abuse in the United States.

Each of these drugs in the United States is manufactured by a single manufacturer with limited channels of distribution and, unlike the amphetamines, the controls inherent in schedule III seem to be adequate at this time to prevent diversion and to protect the public health and safety.

To look at it from another angle, we see that the amphetamine problem is so significant that we have focused primarily on them, but we are still continuing to investigate the abuse of methylphenidate and phenmetrazine.

Chairman Pepper. Excuse me. Is there medical need for Preludin and Ritalin? There has been shown that there is no medical need for amphetamines to speak of. What medical need justifies the continued production and distribution of Preludin and Ritalin?

Mr. Ingersoll. I can ask Dr. Lewis to give you a medical answer to that question, if you would like.

Chairman Pepper. We would be glad to have it because we are very much concerned. Would you be willing, or on the advice of your doctor and counsel here—we have an amendment pending that would put those two substances under the quota system along with amphetamines. Would you and your organization support such an amendment, Mr. Ingersoll?

Mr. Ingersoll. I think I would have to see the amendent first and examine it first, Mr. Chairman.

Chairman Pepper. Put Preludin and Ritalin in schedule II just as amphetamines are put in schedule II by the recent action of the Department of Justice.

Mr. Ingersoll. Well, again, Mr. Chairman, I have to point out that we are examining this question at this time and if it is determined that administrative action should be taken under Public Law 91–513, we will initiate such action.

Chairman Pepper. You have been examining this amphetamine problem quite a long time, too, and we finally got around to it. I do not know how long the administrative and judicial review procedures are going to take. These things still are spewed out on the public of the United States while we go through all these administrative procedures. That is the reason this committee had hoped that Congress could put them under an embargo, under a quota system, and let the others justify their continuation, if they could.

Did your doctor—your physician wish to give any comments on the matter I asked you about, about Ritalin and Preludin?

Dr. Lewis. Mr. Chairman, Ritalin is a mild central nervous system stimulant and its prime use has been in cases of hyperactivity in children of certain types which is made available pursuant to a prescription of a physician. The Preludin is a mild central nervous system stimulant and an appetite suppressant.

I think the question as to the medical need of these two drugs would be one that would probably need to be addressed by the entire medical community in perspective. I do not think there are that many hyperactive children of the type that respond well to Ritalin to require such mass prescribing of this drug. The appetite suppressant effects of Preludin have been considered by some members of the profession as very good.

Chairman Pepper. Did not Sweden discover when they left those two substances out of their control that the abuse turned right over to those drugs?

Dr. Lewis. Yes, sir.

Chairman Pepper. Mr. Waldie.

Mr. Waldie. Mr. Ingersoll, I commend you on your testimony and upon the revelations that you have made to the committee concerning the fertile triangle problem in Southeast Asia. Are you familiar with the article in Ramparts magazine of last month concerning that traffic?

Mr. Ingersoll. Yes, sir; I have read it.

Mr. Waldie. I would like to ask you some questions concerning people of high position in their governments who were identified in that article to determine whether or not your own inquiry on your recent trip would confirm conclusions in the article that these people are in fact involved in the opium trade.

First, can you confirm whether General Rathikoune of the Royal Laos Government Army and Air Force is involved in the opium traffic?

Mr. Ingersoll. Could you give me his full name, Mr. Waldie?

Mr. Waldie. O-u-a-n-e is his first name.

Mr. Ingersoll. What is his surname?

Mr. Waldie. R-a-t-h-i-k-o-u-n-e, according to the article.

Mr. Ingersoll It is general speculation that he is; yes, sir.

Mr. Waldie. According to the article, he has several refineries in a number of villages and his opium is purchased from a Chinese-Burmese merchant called Chan Chi-foo. Did that name come into your purview during your trip?

Mr. INGERSOLL. Yes; I am familiar with that name.

Mr. WALDIE. He theoretically has 1,000 to 2,000 men in a feudal army that guard and assist him in transporting the opium.

Mr. INGERSOLL. I recognize the name as being the head of an insurgency group of Burma. Whether or not the claim that was made in the article is true about his involvement in opium is not proven one way or the other at this time. It is reported that he is now in prison.

Mr. WALDIE. Then, did you come across information concerning Generalissimo Chiang Kai-shek's 93d Division, Kuomintang troops which were left over after the evacuation of the mainland in Burma?

Mr. INGERSOLL. The KMT and their successors who are still active in those areas are the groups that I refer to as the Chinese irregulars. Yes; it is true that they are involved in some of the insurgency action and that they carry on an exchange of opium and arms trade.

Mr. WALDIE. And are they also in the employ of the Central Intelligence Agency for counterinsurgency operations in China?

Mr. INGERSOLL. No; that is not a true statement as far as I know.

Mr. WALDIE. Are they presently supported by Chiang Kai-shek? Does he still maintain contact with them and do they still hold allegiance to him and does he still support them financially?

Mr. INGERSOLL. I am not certain what their allegiance is, Mr. Waldie, but I am told that he is not supporting them financially.

Mr. WALDIE. Did you come across any indication of participation in the traffic of opium in the fertile triangle by Air America?

Mr. INGERSOLL. I think that in the past, Air America planes have been used unwittingly to transport or to haul opium just as TWA and many others have been used to conceal heroin smuggling into the United States, but I can say that it has not been the policy of the management of that airline or the other airlines to provide transportation for the illicit distribution of opium.

Mr. WALDIE. Well, I would assume it would not be their policy.

Were you able to visit Long Cheng in Laos?

Mr. INGERSOLL. No, sir; I did not.

Mr. WALDIE. Are you familiar with the allegations as to the role that Long Chen plays in the opium traffic in the fertile triangle? Well, let me tell you what those allegations are. Long Cheng was established by the Central Intelligence Agency as the base for support of General Vang Pao and Meo tribesmen. It is alleged that Long Cheng is the base to which all the Meo production of opium is brought for distribution throughout the rest of the world or wherever it is then distributed. Did you hear such allegations during your recent trip in Laos?

Mr. INGERSOLL. No, sir; I did not.

Mr. WALDIE. Did you hear any allegations that Long Cheng was used in any way as a distribution point for opium?

Mr. INGERSOLL. No, sir; I did not.

Mr. WALDIE. The United Nations Commission on Drugs and Narcotics estimates that since 1966, 80 percent of the world's 1,200 tons of illicit opium has come from Southeast Asia. This directly contradicts official U.S. claims that 80 percent comes from Turkey. Which claim, in your view, is the correct one?

Mr. INGERSOLL. I think the finding of the United Nations is correct as far as world production is concerned. We have said that the majority of the heroin problem in the United States, not in the rest of the world, but in the United States, is derived from Turkish opium production and illicit diversion of Turkish opium production.

Mr. WALDIE. Now, I presume that figure of 80 percent represents the percentage of opium discovered in illicit traffic in the United States which is of Turkish origin.

Mr. INGERSOLL. That is correct, sir.

Mr. WALDIE. What is the date of that conclusion?

Mr. INGERSOLL. That was a figure used by the old Bureau of Narcotics, but I do not know the precise date. When I became Director of the new Bureau of Narcotics and Dangerous Drugs, I asked for data to support that precise figure and when it was not forthcoming, I dropped the use of the 80 percent figure which had been used traditionally for some time. The best I can say now is that still the overwhelming majority comes from that source. But whether it is 80 percent or whether it is 70 percent, I just cannot tell you.

Mr. WALDIE. Is there any way of making such a determination?

Mr. INGERSOLL. The best we can do is indicate what appears to be the original source from our seizures, but once opium is processed into heroin and is seized in the form of heroin in the United States, it is beyond our technical capacity to trace it scientifically to its origin, but from our intelligence and from common knowledge of traffic patterns, and so on, we make these assumptions.

Mr. WALDIE. Is it a correct statement of fact to say that once opium is produced into heroin, its source as opium cannot be determined?

Mr. INGERSOLL. At the present state of the art its source cannot be traced scientifically.

Mr. WALDIE. On what basis was the conclusion derived that 80 percent of the illicit opium in this country originated in Turkey?

Mr. INGERSOLL. I think that basis has been lost with the passage of time. I am not able to find out when that statement was first made or what the basis was, but basically it was from assumptions derived from seizures of heroin and on the knowledge of the traffic patterns.

Mr. WALDIE. Was it your conclusion, as you completed your tour, that in terms of the fertile triangle, the governments involved, Burma, Thailand, and Laos, were capable of preventing the production of opium and the distribution of opium due to the international market? Were they so inclined?

Mr. INGERSOLL. I don't believe the Government of Burma has that capability at this time. I don't think the Thai Government has that capability without securing the area of production, but Laos probably has the capability. Whether it has the incentive, or not, is another question.

Mr. WALDIE. Does Thailand have the incentive?

Mr. INGERSOLL. I think the primary objective of the Thai Government, including the King, is to do that by changing the life style of the opium producers.

Mr. WALDIE. Changing them from what life style to what?

Mr. INGERSOLL. Changing the life style from the very primitive slash- and burn-type of agriculture they engage in now to a more stable and productive form of agriculture. This is going to require not only the development of agricultural expertise, but it is going to require the provision of markets, provision of transportation facilities between the producing areas and markets, and so on.

Mr. WALDIE. I assume that is their desire. Do we have time, given the nature and extent of the problem in our country and among our troops in Southeast Asia, to support a policy which would be that long in duration to obtain success?

Mr. INGERSOLL. Not in my opinion, sir, and this is why I made it very clear to the Thai Government officials that our concern was one of the immediate traffic; that we should direct our attention to the problem of today but still continue the efforts to deal with the long-range corrective action.

Mr. WALDIE. In that regard, and for my final question, what have you recommended, or what has our Government recommended in terms of actions to meet the problems of today in Thailand and in Laos?

Mr. INGERSOLL. Mr. Waldie, I just returned from this trip in the last 2 weeks and these recommendations are still in preparation. Much of the information and the knowledge that I gained was provided from classified sources and I think at this time that I can't go beyond my statement where I indicated the immediate action that is being taken. One of the things that we are very interested in doing is increasing the capability of the Thai national police to deal with the interdiction of traffic, and I think this is the general area that we are going to focus on.

Mr. WALDIE. I do not intend this as criticism of you, but it does seem to me that whenever we get to the heart of the solution of these problems, we, as Congressmen, are met with a response from the executive branch saying that this is from classified sources and that we are not permitted to discuss it.

Am I fair in concluding that up to this moment in time, there have been no proposals directed dealing with the immediate and urgent problem of control of the narcotics traffic in Thailand or in Laos?

Mr. INGERSOLL. No, sir; that is not correct. I have submitted a report with proposals to my superiors in the executive branch of Government and those proposals are now under consideration. I will be very happy to discuss with this committee the proposals in executive session.

Mr. WALDIE. Then am I correct in saying that prior to your submission of proposals, no proposals have been entertained, nor action undertaken. to control this traffic in those two countries?

Mr. INGERSOLL. It is not a question that we have just started considering something in the last 2 or 3 weeks. We have been formulating proposals or potential possible lines of action for some time.

Mr. WALDIE. For what length of time?

Mr. INGERSOLL. Intensively, since perhaps the last quarter of last year.

Mr. WALDIE. Prior to that time, is it fair to conclude that there had been no consideration of such proposals?

Mr. INGERSOLL. No. sir. We have had personnel stationed in Southeast Asia dealing with this problem for a period of years.

Mr. WALDIE. Well, as a Member of Congress, I am aware that we have been considering dealing with this problem for a number of years, but I have been frustrated by my recognition that we have not proceeded beyond consideration of the problem.

I am attempting to find out what we have done or what we are proposing to do, and I gather from your response to that, that we have done very little, but we are proposing to do much more, but that which we are proposing you are not at liberty to disclose to the American public at this stage.

Is that fair?

Mr. INGERSOLL. The President of the United States was asked this question yesterday at his news conference and he specified the general lines of action the Government is considering. The first item he mentioned was getting at the source, working with foreign governments where the drugs come from, including the Government of South Vietnam where they have a special responsibility.

Continuing, he mentioned vigorous prosecution of those who are pushers; he emphasized that we need to accelerate a program of treating the addict; and that, incidentally, insofar as servicemen are concerned, it means treating them before they are released from the military if they are addicted to heroin or hard drugs.

Mr. WALDIE. Is that a fair summary of the proposals which you submitted and which are classified?

Mr. INGERSOLL. The statement of the President last night outlines in very broad terms the directions that we are pursuing; yes, sir.

Mr. WALDIE. Then, Mr. Chairman, I would have no further questions, but only a comment. I would suggest that the committee, at an appropriate time, go into executive session to listen to the precise proposals Mr. Ingersoll has made to the President which are classified.

Chairman PEPPER. Very good. The Chair will take that up with the committee. I am glad to have that.

Mr. Steiger?

Mr. STEIGER. Thank you, Mr. Chairman.

Mr. Ingersoll, in the main, the whole prospect of outlawing opium on any kind of international basis, I gather from your remarks, is tenuous at best.

Mr. INGERSOLL. Outlawing the production of opium would not get at the illicit traffic unless and until the governments of those territories in which it is produced illicitly have the incentive and the capacity to eliminate its production.

Mr. STEIGER. But the prospect of actually outlawing its production and therefore making all production illicit is at best somewhere in the distant future.

Mr. INGERSOLL. I think that is correct, and in the interim we have to work to improve international controls.

Mr. STEIGER. Aren't we really kidding ourselves when we talk about elaborate programs to buy off the illicit producer, the current illicit producers, because by his nature, if he is an insurgent or entrepreneur, he is a guy who is going to take advantage of whatever harvest comes his way and then obviously it is going to be very difficult because he has now developed an expertise in the production of opium.

It would be easy to pay him for not growing opium, but it seems to me it would be awfully tough to enforce his not growing it somewhere else. From our own experience in this country—we are probably the only country in history to develop the fantastic expertise in paying people not to grow things—complete control and cooperation fail to surmount the problem.

So it seems to me, and on the basis of your remarks, that until we get the American medical community and the world to forego the convenience of codeine, which seems to be the only remaining rationale for the production of opium, and therefore make opium illicit internationally, and then enforce it, that we are just playing games with the people who are too sophisticated to be seduced by that kind of a program.

I don't mean to discount these efforts, but I just don't think they are realistic.

Mr. INGERSOLL. Some proposals are not realistic on a short-term basis, but in the long term, again given the moneys and wills to do it, a great deal can be done to reduce the production of opium.

Mr. STEIGER. I have a few specific questions, Mr. Ingersoll.

I was impressed with your testimony and I wish to thank you for it.

On page 5 of your prepared testimony you mentioned, in the discussion of illicit methadone, one of your recommendations was that the patients be monitored regularly through urinalysis and observation.

You are aware, I am sure, that the sophisticated user who wants to beat the urinalysis has got a great variety of ways of beating urinalysis, I am sure.

Are you aware of the fact that urinalysis is neither absolute nor anything more than an indication that the guy, if he wants to beat the system——

Mr. INGERSOLL. There is no doubt that there are ways of beating the system, and one of the reasons for insisting on tight controls and for close supervision of getting the specimen is to minimize the probability that the patient is not complying with the aims of the program. One of the purposes of the urinalysis is to determine whether or not he is taking methadone. The other purpose is to detect the presence of other opiates, barbiturates, or amphetamines.

Mr. STEIGER. There are, of course, a number of methods in which, even if he uses his own urine, which is not always the case in urinalysis, but even if he uses his own urine, there are physical and chemical devices he can use to mask the use of heroin. We have had testimony to that effect—it was medical testimony—and I assume it is accurate.

But again my point is, and you made the point, methadone is a substitution of an addiction of a less-offensive nature, but still an addict, and as such lends itself to illicit traffic.

On page 10 of your report you mentioned a series of steps you are taking, the immediate action that Mr. Waldie referred to in his questions.

I am curious, in item number 3, you say you are adding additional Bureau of Narcotics and Dangerous Drugs agents to the Far East. How many are we talking about?

Mr. INGERSOLL. This month I will be sending three more to the Far East.

Mr. STEIGER. And how many have we got there now, approximately?

Mr. INGERSOLL. By the end of July we will have 15 agents in the Far East, located in five stations.

Mr. Steiger. If you were going to control the flow with your people, how many would you need, assuming cost was no object?

Mr. Ingersoll. Man for man, our agents overseas are more productive than they are in the United States.

Mr. Steiger. In seizures?

Mr. Ingersoll. As far as seizures are concerned; yes, sir.

Mr. Steiger. Also, they are exposed to more traffic.

Mr. Ingersoll. They are right in the middle of the traffic. I should think that we could adequately justify putting agents in the area numbering in the hundreds, again depending on the degree of cooperation that we receive from the host government. Of course, at the present time we could not support many more agents in the area.

Mr. Steiger. I understand, but you could effectively use many times this number of agents, many times the 15, and in line with the chairman's line of questioning in which we are dealing with a problem that represents a $3.5 billion cost to the Government, it would seem that we are indeed being pennywise and pound-foolish in these areas.

Have you asked for more money so that you can put more people at this particular source of the drug?

Mr. Ingersoll. Yes. Mr. Steiger, in the last 2 years or so that we have been operating the new Bureau of Narcotics and Dangerous Drugs, we have had to deal with our problems in a priority order.

We started off with about 500 agents. Today, or at least by the end of June, we will have in the neighborhood of 1,300 agents. This has been a substantial growth in a law enforcement agency that deals with a very complicated, complex, technical kind of a problem. There is a question of training, there is the matter of experience, supporting staff, equipment, space, and so on.

In this fiscal year alone Congress authorized some 450 new agent positions. In the preceding 2 years we increased by 100 and 150, respectively.

We have handled this large increase without diluting the effectiveness of the main body of agents. During fiscal 1972 we have to settle down, give the agents advance training, develop our supervisory staff. and so on. In the years coming we are going to continue to ask for large incremental increases until we are better able to handle the problem.

Mr. Steiger. The problem, then, is not only a money problem, but it is also simply a pragmatic problem, structuring, and so forth.

Mr. Ingersoll. There is no pool of professional people that we can draw from to do this work. We have to select, train, and develop them ourselves.

Mr. Steiger. One last question. In response to the chairman's inquiry about the kind of structuring of the trade in the Far East, you mentioned that it appeared to be at best a very loose organization made up mainly of ethnic Chinese. In the transport from Singapore, Hong Kong, and the other international markets of the finished product, or semifinished product, do we find the same general organizational effort in the United States in bringing it into the United States that we do in bringing in the Turkish product? Is organized crime involved? Are the same general people involved in financing it and transporting it as they do the Turkish product from France?

Mr. INGERSOLL. No, sir. This particular traffic, which I might say is still a very small proportion of the heroin traffic into the United States, is composed largely of independent groups of people.

Some of them, many of them as a matter of fact, are ex-servicemen who have got back out to the Far East to deal in this and other forms of contraband traffic.

Mr. STEIGER. So that the organized crime traffic in heroin is primarily sustained from the Turkish source and not from this Far East source at this point?

Mr. INGERSOLL. Yes; except that I should also mention that there are more people than just those who we traditionally classify as members of organized crime involved in this traffic as well. There is a good deal of competitive effort and dispersion of efforts.

Mr. STEIGER. You are talking about the total picture?

Mr. INGERSOLL. Yes, sir. I mean Europe, as well.

Mr. STEIGER. Yes.

Mr. INGERSOLL. The producers of heroin in Europe will sell to anybody who has the money, and more and more people have made contact with them and are providing the money. So it is not restricted to just one identifiable group.

Mr. STEIGER. Thank you.

Thank you, Mr. Chairman.

Chairman PEPPER. Mr. Brasco.

Mr. BRASCO. I am sorry I was late, Mr. Chairman, but I had to attend another hearing.

Mr. Ingersoll, several weeks ago I had the opportunity to sit at an informal meeting of Members of Congress from the Queens area in New York, in which we heard a number of representatives of different veterans organizations complain about this growing number of servicemen who are becoming addicted to heroin, drug abusers in general. There was a representative of the Department of Defense, whose name I can't recall at this time, but at that point the veterans organizations had some people with them who were talking a figure of as high as 70 percent in terms of hard-core addiction and ranging on down to abuse of other substances, other than heroin.

The Department of Defense individual, as I recall, said the figure was something like 35 to 40 percent.

I am wondering whether or not your trip could shed any light on this point as to whether we know how many of our servicemen are becoming involved as drug abusers in Vietnam or in the Southeast Asia area.

Mr. INGERSOLL. I am dependent, Mr. Brasco, on Department of Defense information as far as servicemen are concerned, and in my most recent trip I really didn't focus on marihuana abuse and matters of that nature. I was immediately, and almost exclusively, concerned with the growing heroin problem.

Our military officials in Vietnam have conducted surveys which at different periods of time report different things. As I recall, the last general kind of survey like this was in the high forties—48, 49 percent.

The abuse problem varies as to age, as to rank, length of time in the country, and a variety of other factors. For example, these surveys report no heroin use among officers, even junior officers, but they do report marihuana among junior grade officers. They report that in the lower enlisted grades, heroin abuse is most prevalent, and that there is very little of it, if any, in the NCO ranks or the officer ranks.

They report that in some surveys, that in the neighborhood of 10 or 15 percent in some areas, have reported that they have used heroin. What "used" means, I don't know. Whether it means once, twice, or whether they are addicted, is impossible to determine from these surveys. The rate of heroin use as adduced from CID investigations is increasing tragically. In 1970 CID made 1,146 apprehensions for heroin possession and distribution. In the first 3 months of this year they have already made over 1,000 such apprehensions. The apprehension rate last year was about six per 1,000 troops, and the rate this year has doubled to over 12 per 1,000. Over 4,000 servicemen have gone through amnesty programs in the first 3 months of this program. The amnesty program is a detoxification session lasting from maybe a week to 3 weeks in 15 different centers. How many of these were really addicts and how many people were malingerers is hard to tell because they don't get the results of the examinations back for several weeks, and by that time the man has been reassigned or is no longer in the center.

The other item of importance pertains to autopsy-proven deaths due to heroin overdoses. As I recall in the last 6 months of last year, some 60 overdose deaths were reported.

As to the statistical tables I have seen, I have some questions about the validity of surveys and what they report. We have tried surveys in the United States and we have found that people very often respond to a question like this with the answer that they think you want or because they think that it is going to get them out of some unpleasant duty or something of this nature.

Mr. BRASCO. I agree, but suffice it to say that the rate of abuse among the servicemen is alarmingly high.

Mr. INGERSOLL. There is no question about that. It is my judgment, and another conclusion I made from this last trip, that the presence of a large marihuana market in Vietnam caused traffickers in heroin to believe they could find a market for their product, as well.

Mr. BRASCO. Let me ask you this: Also at that particular meeting, and I am sure that disturbs us all, the Department of Defense representative indicated, when it was asked of him what we are doing, if anything, with respect to trying to clamp down on the South Vietnamese who are engaged in illicit drug traffic in terms of selling it to our troops, the reply was, and I guess in the inscrutable logic of the Asian, that they are the hosts and we are the guests, and I am wondering whether or not—this meeting, as I said, was several weeks ago—I am wondering whether or not your trip has indicated any degree or willingness on the part of the Government of South Vietnam to become involved in clamping down on this traffic, because my distinct impression from the Department of Defense representative at that time was that the Department of Defense efforts were, in his opinion, frustrated because of that guest-host relationship, and I am wondering whether or not you perceive any willingness on the part of the South Vietnamese Government to cooperate?

Mr. INGERSOLL. Well, before I went to South Vietnam I had heard from my briefings, pretrip briefings, that a common response to representatives to the South Vietnamese Government was, "This is an American problem." I let it be known as forcefully as I could that such a response was not going to be an acceptable answer as far as I was concerned. Consequently, I didn't hear it once. To the contrary, I heard statements of concern by President Thieu and the Prime Minister, which were followed up by action.

During the week I was there the President appointed a very close adviser to head up a special task force reporting directly to him to monitor all of the activities of the various ministries of the South Vietnam Government which had a responsibility for this. The week following my visit there, about 130 people from the customs services were transferred. There are some pending disciplinary actions, perhaps criminal actions, against those for whom provable charges of corruption, malfeasance, or nonfeasance of duty, can be levied.

The South Vietnamese Government has been made well aware not only of our concern, but have been made well aware of the fact that we are insisting that something be done to stop the importation of heroin into the territory of South Vietnam.

Mr. BRASCO. Let me ask you this, Mr. Ingersoll: As a matter of policy, are any of our military police or other law enforcement people that we may have in the area, permitted to participate in arrests that may involve South Vietnamese civilians? It just seems to me that—I think we are in agreement—the South Vietnamese, to the extent that they grow drugs or import them, are a source of the problem.

If they have sole control over it, it would be sort of like asking a burglar to call the police station and advise them of the next time and place that he intends to burglarize someone's apartment, and to that extent I am wondering whether or not that is a combined effort with our people and theirs or are we solely relying on the Government of South Vietnam to work in this area of suppression of the drug traffic?

Mr. INGERSOLL. No. At the present there is a combined effort and it is becoming a closer collaborative effort. Out in the provinces there are joint narcotic teams including representatives of our military investigative agencies, who work hand in hand with the Vietnam police.

At the seat of government, itself, the BNDD agent there, is providing information, leads, investigative leads, and monitoring to see that they are followed up.

All of this has happened very recently, of course. In the past, collaboration was inadequate, but it is now becoming increasingly satisfactory.

Mr. BRASCO. Thank you.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

I have two short questions. The chairman referred to the pressures that we might be able to put on the countries that we are furnishing military and monetary aid to, but isn't the real secret to this problem, and I agree with the philosophy, that it sounds good, but as you point out, it looks to me like the real problems are the uncontrollables. Those are the bad guys to start with.

And it seems to me that we would be forced into a position of being blackmailed by those groups, that if we didn't pay off in large sums of money or whatever they might desire, they would put us over the barrel, so to speak, and continue to grow poppies and whatever they wanted; right?

Mr. INGERSOLL. That is correct when you look at it on a worldwide basis. Certainly the greatest amount of opium is produced illicitly in countries where it is illegal to do it in the first place, and where the law is not adequately enforced.

As I said in my prepared statement, we could be somewhat optimistic on the ability of the Government of Turkey to enforce a total ban because of the relative stability of that Government, for at least the Central Government does have control of its territory for the most part, particularly where opium is produced.

In these areas in Southeast Asia where opium is produced in large quantities, there is a large local addict population, as well, and the great bulk of it, probably the majority of it, is consumed locally in Southeast Asia. This is probably one of the reasons why it hasn't been a significant problem to us before, and probably one of the reasons why we just haven't paid adequate attention to it before. We, like others, have not considered it as our problem.

It is similar to the drug problem in general. When it was confined to the ghettos, it wasn't given a high resolution priority. Even though some people were concerned with it 20 years ago, and predicted with astute accuracy what was going to happen if something wasn't done, this was not transformed into the necessary action to control its spread. Now, we are faced with the same kind of circumstances in Southeast Asia.

The more successful we are in reducing the flow of heroin or opiate alkaloids from other parts of the world, the more important that source is going to be as a supplier to the United States. We fully recognize this. We have been shifting our attention in that direction, but we are still required to deal with the most immediate problem over on the other side of the world first.

Mr. WINN. But you pointed out Burma, I believe, as an example, and there are some others, where we don't have any military or monetary pressure on those countries.

Mr. INGERSOLL. That is correct.

Mr. WINN. This is what makes the problem really a tough one, in my opinion.

Mr. INGERSOLL. It is an immensely tough problem, Mr. Winn, and in the case of Burma, I think our only hope is to bring about international influence, hopefully through the United Nations.

Hopefully some day Burma will permit a U.N. survey of the problem and adopt recommendations that are made. One of the results of this survey will be that other governments will recognize the importance of Burma in this whole activity and governments that have more credits with the Government of Burma than we do will use this influence to bring about an improved condition.

Mr. WINN. But your plan is for the long range, the long run.

Mr. INGERSOLL. I am concerned with both the long-range and the short-range problem of interrupting the traffic. If we can get at the distribution, then we can at least keep the thing under some reasonable level of control until we can see the effects of the long-range programs.

Mr. WINN. Thank you, and I commend you for your testimony today.

Thank you, Mr. Chairman.

Chairman PEPPER. Mr. Mann.

Mr. MANN. Thank you, Mr. Chairman.

To what do you attribute the recent flurry of cooperation by the South Vietnamese Government in this problem?

Mr. INGERSOLL. I think it is fair to say that they have been made pointedly aware of the nature of the problem.

The problem has gotten increasingly worse until it is now at the point of a crisis. The South Vietnamese Government has been informed of that and they have reacted as I have described.

I should point out, too, that the white heroin that is presently being used by our troops, first appeared on the scene about 15 months ago. Before that there had been no heroin of this kind detected in Vietnam.

Mr. MANN. On the domestic scene I recognize that increased personnel will make you more effective in seizures and in controlling the illicit drug traffic of which I understand we now probably intercept 20 percent of the illicit importations of heroin?

Mr. INGERSOLL. That is somebody else's figure, Mr. Mann, not mine.

Mr. MANN. Do you have a guess?

Mr. INGERSOLL. I don't have any; no, sir.

Mr. MANN. Other than additional personnel, which we all recognize as essential, what other law enforcement tools can you suggest to handle this problem?

Mr. INGERSOLL. We are making efforts to develop technical aids that will make the job of detecting drugs easier. With the implementation of Public Law 91–513, which became fully effective on May 1, we have a new legal tool that will assist us greatly.

We focus our sights on the major distributors. We are soliciting and obtaining increasing support and cooperation from State and local police agencies in this matter, in the law enforcement area.

But law enforcement deals with systems. It is the first aid agency of society. It is not the curative, not the doctor, and it doesn't eliminate causes of these problems. Our society has gotten itself into an unfortunate state of affairs regarding drugs because it has assumed that by passing laws and enforcing them, the problem will go away.

So it seems to me that while you can expect the law enforcement agencies to do the first aid work, if you want a cure, then we have got to go back to the basic causes and find out what can be done from that end. We have to look to improved and increased rehabilitation programs. We have to find out more about drugs and why people use them, knowing of the debilitating consequences.

The chairman mentioned the possibility of immunizing people against drug abuse. I think that this is an area well worth exploring and, as a matter of fact, my organization is exploring this possibility at this time. I would like to get the medical practitioners of this country to be interested in that area of inquiry. If we can deal with the problem on all of the fronts that we well know, and deal with it effectively, then maybe we will have an effect on it. But in order to do that, we have to have the full support and the will of the people.

One of the places I stopped at during this trip was Japan. Ten years ago Japan was in a condition very much like our own. Today they claim that drug abuse is now under complete control. I asked the police how they did it, how they arrived at that happy state of affairs. The most important thing they told me was that they had the support of the people to do what had to be done in order to get it under control. Regrettably, I don't think we have that support here, yet.

Mr. Mann. Thank you.

Thank you, Mr. Chairman.

Chairman Pepper. Mr. Sandman.

Mr. Sandman. Do you believe that they really have it under control?

Mr. Ingersoll. They certainly don't have the problem that we have, Mr. Sandman.

Mr. Sandman. Now, the figures that you gave, Mr. Ingersoll, I don't know whether I understood you correctly or not. Were those figures of arrests in 1970—1,146—were they just arrests in Southeast Asia?

Mr. Ingersoll. They were made in South Vietnam by military authorities.

Mr. Sandman. And the first 3 months of this year it jumped to 1,082?

Mr. Ingersoll. Yes, sir.

Mr. Sandman. Now, the percentage figures that you used, of a thousand men in the armed services in that area, how many would you say have been exposed to the use of an opiate?

Mr. Ingersoll. Theoretically, all of them have had the opportunity to use it.

Mr. Sandman. I mean those who did use it.

Mr. Ingersoll. I don't know that I can give you an answer beyond the data that I provided before, Mr. Sandman. Anything else would either be a recitation of the surveys that the military have taken, which indicate that in some groups, in some units, the rate is 10 to 15 percent who have reported the use of it.

Mr. Sandman. You mean one out of every 10 men in the armed services have used an opiate?

Mr. Ingersoll. No, sir. That isn't what I mean at all. I mean if you take the lower enlisted grades who were in two different units, one in a group coming home, one in a holding-type of unit, and if you project what was reported from surveys in those organizations to the entire military forces in the country, then you could say that. But what I am saying is that of the few hundred people, and I can't remember how many people answered these questionnaires, some 10 or 15 percent of that group said that they had used heroin at one time of another.

Mr. Sandman. Based upon that kind of a finding, you can hardly put much value on that; can you?

Mr. Ingersoll. That is my point. That is why I do not attach a significant value as applied to the military at large.

Mr. Sandman. Right. So the point I am making, sir, these astronomically high figures cannot be accurate. No one can make me believe that one out of every 10 soldiers has used heroin, or anything like it.

Mr. Ingersoll. I agree. The problem is primarily found in the younger age groups and the lower enlisted grades.

Mr. Sandman. I agree.

Now, if you ban the growing of opium entirely—I don't know the answer to this question—would it have a drastic effect upon the pharmaceutical industry? Are these drugs needed? Can they be replaced?

Mr. Ingersoll. I think that industry representatives could answer that question better than I can; but from the information I have, the principal therapeutic substance that is derived from opium right now, codeine, cannot be replaced adequately, and certainly not at the same price, as economically or as easily as codeine is used. Codeine has antitussive, analgesic, and mild sedative characteristics. All of these are necessary for treating some very common ailments, and nobody has found the way to either synthesize codeine itself or to come up with an alternative that has all three of these characteristics.

Mr. Sandman. Now, within the United States, what would you say your percentage of increase in the use of heroin, the opiates was in 1970 as compared to 1960?

Mr. Ingersoll. I can't answer that question, Mr. Sandman.

Mr. Sandman. In round figures, has it been a drastic increase?

Mr. Ingersoll. In that 1-year period?

Mr. Sandman. Yes, sir.

Mr. Ingersoll. No, sir. I think the drastic increase occurred during the 1960's.

Mr. Sandman. Right. In fact, you haven't had the rate of increase in 1970 at all, have you, that you know of?

Mr. Ingersoll. It is hard for me to answer that question because we don't have accurate statistics. Over the years some data have been collected which are not representative of the entire population.

Mr. Sandman. That is it. Of the 50 States, how many States do you feel have statistics on the use of the opiate drugs that are worth anything at all?

Mr. Ingersoll. Probably two.

Mr. Sandman. Two. And what States are those?

Mr. Ingersoll. New York and California.

Mr. Sandman. I agree with you. The others have no statistics that are worth anything. And New Jersey is one of those.

You have only 15 men in all of Southeast Asia, 15 agents, which, of course, is not nearly enough to do the job I am sure you want to be done. Now, in the 50 States, even the big metropolitan States, you have the same kind of a problem; don't you?

Mr. Ingersoll. As far as our own personnel strength is concerned, yes.

Mr. Sandman. All right. Now, how about as far as the State personnel are concerned?

Mr. Ingersoll. This is something that has changed in the last couple of years. In 1968 there probably were not more than a few hundred State and local police officers who were truly expert in the field of drug control. During the last 2 years we have trained and oriented some 40,000 police officers throughout the United States in varying degrees of intensity. The results, particularly in cities where we have trained not only specialists but uniformed officers, have shown great improvement as far as the ability of the police departments to deal with this problem.

But law enforcement agencies, except maybe on the west coast or in New York, for the most part, didn't have either the expertise or the staff to engage the drug control situation until the late 1960's in any substantial way.

Mr. SANDMAN. In 1965, for example, I know my own State, in the whole State of New Jersey, they had less than 10 agents in the whole State. We are right next to the big source of supply in New York. Do you know whether or not, for example, that State has increased the number of people it has working in conjunction with your agents?

Mr. INGERSOLL. Yes. When you include the State police and all of the municipal and county and borough police together, it has increased. I couldn't tell you how much.

Mr. SANDMAN. Are they taking advantage of your training program?

Mr. INGERSOLL. Yes, sir.

Mr. SANDMAN. They are?

Mr INGERSOLL. Yes.

Mr. SANDMAN. Thank you.

Chairman PEPPER. Before I call upon the next member, Mr. Murphy of Illinois, I think note should be taken of the fact that he has been to Asia and made a very careful study of this subject and has filed a report with the Foreign Affairs Committee of the House of Representatives.

Mr. Murphy, would you like to question the witness?

Mr. MURPHY. Thank you, Mr. Chairman. I will follow your suggestion. I will file a report with the Select Committee on Crime about our recent tour and factfinding trip to Southeast Asia.

(The report referred to is a matter of public record and was retained in the committee files.)

Mr. MURPHY. Mr. Ingersoll, you mentioned on page 10 that immediate actions have been taken. I am very interested in your first notation. You say President Thieu has appointed a special task force reporting directly to him.

Now, I talked directly with Vice President Ky when I was in South Vietnam. He recognized that the heroin addiction problem among troops was of epidemic proportions. Contrary to what my colleagues from New Jersey just mentioned about the one out of 10, I have Army surveys, though I will not reveal the name of the individual who gave me the survey, which notes that in some units the percentage of usage is as high as 50 percent; in other units, 30 to 35 percent. I agree with you that it is very low among officers, but it is, nevertheless, very high among E–5's and below.

As far as the question of Mr. Sandman is concerned regarding when the fellows are approached when they get into Vietnam, we talked to literally hundreds of privates and corporals, who assured us they were not in Vietnam 15 days when they were contacted by a fellow American or some member of the South Vietnamese population as to the availability of heroin and where they could obtain their source of heroin.

So it is a problem I think that belies any figures given. I agree that nobody wants to admit he is a heroin addict, but the problem is rampant in Asia, and especially in South Vietnam, and the Army is very concerned about it.

Getting back to President Thieu, Vice President Ky said he recognized the problem to be of epidemic proportions amongst the troops in South Vietnam, but he said his hands were tied by President Thieu in that President Thieu would not give him the responsibility or the obligation to clean up this problem or at least make an attempt. He added that were he given the responsibility or authority, he would make concrete results in 2 to 3 months.

Now, you say that there has been a flurry of activity since my trip and since your trip.

I am wondering, is there real cooperation on the part of the South Vietnamese Government or do they simply tell you they are going to cooperate? Did you actually see any effort being made?

Mr. INGERSOLL. I didn't see it firsthand, Mr. Murphy, but I am continuing to get reports that indicate that action is being taken. I will give you several examples.

One is the transfers and movements, the shakeup of their customs service. Another is that they have now put a qualified individual in charge of their narcotics control effort on the part of the national police. This is a measure we have been trying to get them to do for a year or more. They are increasing the size of the central squad, the central unit of police, and giving them countrywide freedom of movement. In the provinces there is activity in terms of developing localized narcotics expertise. As far as arrests or seizures are concerned, I don't have any indication of what has resulted from this activity, yet.

Mr. MURPHY. But specifically, John, Soul Alley, or Scag Alley—I don't know whether you made an attempt to go down there.

Mr. INGERSOLL. Yes.

Mr. MURPHY. If you talk to anybody over there, they will tell you there are from 400 to 800 American deserters living in that area. It is an area comprising four or five blocks and you don't have to be any great investigator. All you have to do is have two legs and eyes to guide yourself down there, and you can buy your heroin in vials openly on the street.

A 9-year old boy offered to sell it to me, and a colleague of mine from New York, on the Foreign Affairs Committee, Congressman Halpern, just had his picture in the New York Times actually transacting a sale on the street.

These are the things that lead me to believe we are getting nothing but lip service from the South Vietnamese Government.

Mr. INGERSOLL. Mr. Murphy, I think at the time you were there what you say may very well have been true, and I am not trying to reduce or say the problem is not serious, but what I reported to this committee today is what has happened during the last few weeks. I am in an uncomfortable position. I am not here taking credit for what has been done; it all started happening after you were there with Congressman Steele, after Congressman Halpern was there, and while I was there. Your visits probably stimulated a good deal of activity, themselves.

As far as Scag Alley is concerned, our military is placing more and more locations where heroin is available off limits, and I understand that there was a sweep through Scag Alley about a week or 10 days ago.

Chairman PEPPER. If my colleague will yield, I think he would be interested to know how many people have been shot or put in prison who have been engaged in this traffic.

Mr. MURPHY. Well, as John indicated before, Mr. Chairman, I know they did arrest a South Vietnamese legislator and I think he is still in jail.

Mr. INGERSOLL. Yes. He is still in custody.

Mr. MURPHY. But as far as shooting people, I don't think they have done too much. They would have to talk to the Shah of Iran. He is a specialist in that.

Chairman PEPPER. There are other ways to get rid of them.

Mr. MURPHY. Did they ever give you any figures on the deaths due to overdoses of heroin?

Mr. INGERSOLL. They gave me two sets of figures, Mr. Murphy. One was based on autopsy proven deaths and the other was clinical findings.

Mr. MURPHY. Do you have those with you?

Mr. INGERSOLL. I don't have them with me and I can't call them up at this moment.

Mr. MURPHY. Now, getting over to Turkey now, you mentioned in your question by one of my colleagues here that $3 million have been given to Turkey. This subject was brought up on my visit to Turkey, and unfortunately all those supplies, meaning shortwave radios and jeeps and the rest of that, stood on the dock for over a year and have not been put into use because of some type of customs which prevented anyone in Turkey from knowing who had the responsibility to pay.

So I am wondering if this is an example of the type of aid and whether you have any suggestions as to how we could bypass some of this redtape in these countries.

I am not blaming this administration. But I am wondering if you have any ideas. If we give these people shortwave radios, give them the tools with which to fight this. The tools did not trickle down to the people who need them, and until this is so, all the aid in the world is not going to do us any good.

Mr. INGERSOLL. I don't know who told you that stuff was still sitting on the dock, but it is not. There was a long delay because, for reasons I can't explain, one part of the government had to pay the customs duty on the equipment that was coming in, and nobody had an appropriation or authorization to pay this.

Well, eventually the transfer of funds occurred and the equipment was cleared.

Now, this happened twice. The problem has been resolved and equipment that is going over there now or that has gone over in the past few months has cleared quickly. But I don't think that any of it had stayed on as long as a year. It had stayed on for 3, 4, 5 months, which was more than annoying to us and we made our annoyance known.

Mr. Murphy. John, one problem you and I discussed before your trip was the fact that ex-GI's return to Bangkok and set themselves up in this opium and heroin trade. One fellow in particular owns the Five Star Bar and Lounge. I was wondering, do you have any suggestions as to how we would eradicate that problem? Have you made any to the President, or are any under consideration?

Mr. Ingersoll. We had that man in custody in the United States about a year ago but our agents made a fatal legal error and his case was dismissed. The problem of ex-servicemen is not only in Bangkok but also in Okinawa, and we are increasing our investigations there and intensifying our activities there, too.

Under the new Controlled Substances Act we have a new device available to us which will permit us to prosecute any person who manufactures for or causes distribution to the United States while in a foreign area when he appears in the United States.

We intend to make use of that device for these people when they come back into the United States or when they are subject to extradition. In the meantime, hopefully we can get the Thai police to prosecute for violations that are occurring in Thailand.

Mr. Murphy. In my trip, Mr. Ingersoll, I talked to a lot of your men, and by the way, before the committee, I would like to compliment Mr. Ingersoll and his men that he has stationed around the world. They, in my opinion, do a magnificent job.

One of the problems that I discussed with some of your men, Mr. Ingersoll, was this problem of the availability of funds to make purchases on the market, and the use of these funds to buy witnesses and information.

One particular problem was that you had to go to the embassies with the general consuls around, and if you needed a large amount of money, this need created a lot of redtape. There was also the fact that it exposed the particular arrest or buy that they were going to be involved in and chances of leakage were very great.

Do you have any recommendations you would like to have Congress consider in the form of a special fund, covert fund, that you could use?

Mr. Ingersoll. I prefer not to discuss that in an open session, if you don't mind, Mr. Murphy.

Mr. Murphy. I mean just in general terms. I don't mean in specific terms.

Mr. Ingersoll. We have investigative funds. Congress has consistently, over the past 2 years, increased these funds significantly. I think we can use more. I am at a point now where I can determine how to use these funds intelligently. I have to admit that 2 years ago, or even a year ago, I wasn't as certain about how to use a large amount of funds intelligently, and I saw no justification to ask the Congress for vast amounts of money when I didn't know how I was going to spend it.

Now I think I am at the point where I can use more money and use it effectively.

Mr. Murphy. Thank you, Mr. Chairman. Thank you.

Mr. Steiger. Mr. Chairman, excuse me, if the gentleman will yield. I think the record ought to reflect that the gentleman's comment as to the purchase of witnesses—I suspect what the gentleman meant was any expenses involved.

Mr. MURPHY. I meant to say "informants." I wish to correct the record.

Mr. STEIGER. Thank you.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. Thank you, Mr. Chairman.

Mr. Ingersoll, earlier you indicated that the people who sell heroin go to those who have already been using marihuana. I may not have quoted you accurately, but I got the distinction—they seem to be the best source of potential heroin users. Is that correct?

Mr. INGERSOLL. No. That isn't what I meant, Mr. Keating. What I was describing was an environment where marihuana had been widely used with little interference, few sanctions. The point is that this is an environment of people who are highly susceptible to drug abuse. There is a reputation of susceptibility to drug use that Americans are getting around the world. Wherever our young people go, their accessibility to illicit drugs is not only guaranteed but they are helped to get to them by the traffickers.

What I am saying is that when there is a tolerance for the use or the abuse of one drug such as marihuana, and it is widely known, then there are people who deal in other drugs who are going to try to exploit the market, and the market is there. This is a national problem, not just one of Vietnam.

Mr. KEATING. All right. Well, that is the point I was trying to make and I didn't say it as well as you.

Now, would that hold true in the United States, too?

Mr. INGERSOLL. I am satisfied that it not only will hold true, but it has held true.

Mr. KEATING. So that where there is an environment of the use of some drug, including marihuana, it provides an area that is susceptible to——

Mr. INGERSOLL. I think it is very obvious from our experience during the last 10 years that people—even the use of marihuana has expanded tremendously, explosively. We are all bothered and debating whether we should legalize it, or not. There is nobody who can make an unqualified scientific judgment as to the harm or the lack of harm that attends marihuana consumption. And while we are in this state of flux and indecision, what is happening? People are not just using marihuana. Over the last 5 or 6 years they have gone to hashish, the resin of the cannabis plant that some people say is 5 to 10 times stronger per unit than the marihuana that was previously used. We have seen a tremendous increase, as the chairman and others have pointed out, in the use of heroin. Heroin was once confined to specifically identifiable segments of our society. Now it is everywhere. We have seen the increased abuse of other drugs such as LSD. We have seen the increased abuse of stimulants and the depressants, and we have a society of drug abusers here. And every illicit drug entrepreneur around the world has tried to exploit this.

Mr. KEATING. That is precisely the point I am trying to make. And those, if I could extend what you are saying, who then tolerate the use of marihuana are creating, in effect, a greater problem in drug abuse in this country.

Mr. **Ingersoll.** I think so, because marihuana is an agent of drug abuse.

Mr. **Keating.** Do you have any idea how long we tolerated the use among the members of the armed services in South Vietnam—prior to getting to this point, as you indicated, 15 months ago—of the use of white powder heroin? I don't have to know precisely, but——

Mr. **Ingersoll.** My first trip to Vietnam was in 1968, the fall of 1968, and the use of marihuana was widespread at that time.

Mr. **Keating.** And was this tolerated by the armed services for too long and to too great an extent which led to the use of heroin or built up the environment in which heroin then became part of the problem?

Mr. **Ingersoll.** Mr. Keating, I don't want to be put in the position of using hindsight as to the military problems, and I am not going to sit here condemning the way things were done in the military. It is obvious that the military had many other problems in Vietnam in addition to this.

But I do think, on the basis of hindsight, that more direct and more effective action might have been taken against marihuana when it was just a small problem. Marihuana was not a problem among the Vietnamese; the American troops provided the market for marihuana.

Had it been dealt with forthrightly at the beginning, perhaps we could have avoided the difficulties we are having today.

Mr. **Keating.** I agree that it is easy to have hindsight in these matters and what is past is past, except we have to build for the future on what has transpired before, and the fact is that we ignored the problem for too long and didn't understand what potential was created by the use of marihuana in these areas.

I think that sums it up really.

Now, especially in an area where there is some control exercised and capable of being exercised over the men in the service and in South Vietnam, the Army can control its men to a large extent and what comes in and out of camps.

I would like to move on, if I can, to another area. Enough has been said, I think, regarding the pressure on these governments.

What concerns me is the feeling of sensitivity toward the feelings of some of these countries. I have been placed in two situations recently where I have asked why our country has not taken a public position with respect to Turkey and with respect to some of these other countries, why we are so concerned that we can't take a public position on their exercising greater restriction over the illicit flow of drugs within Turkey. And all I get is a, well, we can't do that. We have to be concerned about their feelings.

They say we will try and work in other channels. But I think the progress that we have made in areas like Turkey has not been sufficient, and this is—I think you have done an excellent job here today and I think you have done an excellent job in your Department and don't for 1 minute consider this a criticism of you—but I think the policy statement of our country should be that Turkey is a great source of supply and condemn them for it.

Estimates will run anywhere from 50 to 80 percent, and I agree with you it is difficult to pinpoint it. But it seems to me that if the United Nations is sensitive, if the State Department is sensitive under different administrations to publicly say we want Turkey to stop this, then they shouldn't be.

Now, we all talk about it, but is there such an official position? I have been told that there is not.

Mr. INGERSOLL. The position is quite clear, Mr. Keating, and I can make my point by quoting from a statement I made in January of 1970, before the United Nations Commission on Narcotic Drugs, where I said:

> We should all look forward to the day when opium is not needed at all, and we urge WHO to bring this possibility into sharp focus as a vital issue as soon as possible.
>
> The Government of India has previously stated that opium production is barely profitable and probably not of real economic value to the country. Surely this is also true in Turkey where, in comparison with the Turkish economy as a whole, poppy cultivation is of negligible importance. Legal exports of opium earned only 1.7 million U.S. dollars in foreign exchange for Turkey in 1967, or only one-third of 1 percent of all its export earnings. The total income to Turkish economy, including exports, internal distribution, and poppy seeds, probably does not exceed 5 million U.S. dollars.
>
> Further, the importance of poppies to the individual farmer in Turkey does not appear too significant in view of the cash component of his total income. It is estimated that the average income per farm in Turkey is about $1,000 per year whereas the average income to farmers derived from poppy growing is only about 50 U.S. dollars per year.
>
> I have singled out Turkey only to illustrate what must surely be the condition in other opium-producing countries. Most certainly the social consequences of continuing opium production far exceed either the medical or economic advantages of having it available. Halfway measures will not suffice.

This statement was criticized for 3 or 4 weeks during the Commission meeting after that, but this is the position that we are taking with respect to Turkey and other countries which we have consistently held for over a year, at least.

Mr. KEATING. I recognize that in Thailand and countries like that they have areas that the Government can't control, but I don't believe that is true in Turkey, and I think Turkey can control a great majority of its product and it just seems to me that we ought to be carping away at Turkey and those countries which can control it. They can do a job like India and Russia, and buy in the crop and do things like that, and I don't see why we don't keep telling them to do it. I compliment you on the statement you made.

I would like to have seen it stronger. I am sure you got a lot of criticism for it, even as it was. It was nicely said and I don't think I would be quite as nice.

But I do think we ought to apply public condemnation, we ought to apply economic measures because we are talking about our national interest, and our national interest is in the youth today, and unless we pursue this strongly and firmly with the foreign countries, I think we are not really performing a service for our country.

They always feel free to condemn the United States and I don't think we should be so nice about the problem. I know I am making a statement instead of asking questions.

How many clinics are there dispensing methadone in the United States today; approximately?

Mr. INGERSOLL. 275, Mr. Keating.

Mr. Keating. Are sufficient precautions being taken by these clinics prior to the entry of people into the methadone programs? Are the individuals being checked out carefully enough?

Mr. Ingersoll. The ones who are complying with the law are taking adequate precautions. There are cases of individual practitioners who are prescribing methadone under a justification that it is a doctor's privilege to prescribe what he thinks is best for the patient at hand, notwithstanding our guidelines or other medical judgment. A good deal of diversion is occurring because of loose prescribing practices by people who are not operating within the framework of the guidelines.

Unfortunately there are some large, almost what you could call "methadone mills" operating in some areas, and many of these are operated by doctors. In one case we have presented a request for criminal prosecution against a doctor. The prosecutor has not yet accepted the case. I might add that this individual finally has stopped running a methadone operation and has moved to another part of the country.

We have another case under investigation which will be presented for prosecution in the very near future, where huge quantities of this substance are doled out to practically anybody who comes in and asks for it. Under the new regulations we can control diversion from those methadone clinics and at the same time permit them to operate within the framework of the law.

Mr. Keating. Are there many operating outside of the framework of the law, aside from individual physicians?

Mr. Ingersoll. This is hard to say. There are some who in the past have had investigational new drug applications but who have not followed established protocol standards, and in these cases, now that we have the regulatory authority to deal with them, we are conducting investigations of their activities. In conjunction with FDA, if they don't comply with the regulations, then their authority to engage in this kind of activity will be revoked.

Mr. Keating. Has the medical association, on a national scale or local scale, taken any position on the use of synthetic drugs?

Mr. Ingersoll. No, sir. They have not issued any policy statement. I understand that the matter is under consideration at this time with regard to the medical association.

Mr. Keating. Isn't this an area that they should be taking the lead in, or encouraged to take the lead, medical practitioners?

Mr. Ingersoll. Certainly they are the ones who are going to have to convince the medical practitioners as to the desirability of using substitutes.

Mr. Keating. Now, one more comment on an observation you made which I think is excellent. In effect you said law enforcement is just as good as people want it to be, and I am a firm believer in that, and when the people speak up and support the law enforcement officials in this area, and we recognize what you said earlier about marihuana providing the environment for which we expand the use of drugs, then I think we are going to, in this country, make real progress.

It is true in law enforcement generally, but it is especially true in this area. I commend you for your comments and thank you for your participation.

Chairman Pepper. We will take a temporary recess and go over and answer the quorum call, and then come back and resume Mr. Ingersoll's testimony.

(A brief recess was taken.)

Chairman Pepper. The committee will come to order, please.

Mr. Rangel.

Mr. Rangel. Thank you, Mr. Chairman.

Mr. Ingersoll, the responses I have received since I have been down here, from the Office of the President, the State Department, the Attorney General, and the Office of the Federal Bureau of Investigation, indicate that your Bureau has the responsibility for stemming the illicit flow of drugs into the United States. Is that a fair description of your responsibilities and that of your Bureau?

Mr. Ingersoll. We have the primary responsibility and, of course, the Bureau of Customs has responsibility at ports and border crossings.

Mr. Rangel. You say you have 1,500 agents?

Mr. Ingersoll. No, sir. About 1,300 at this time.

Mr. Rangel. How many of these agents are assigned to foreign countries in connection with the international traffic?

Mr. Ingersoll. Of the agents, 61.

Mr. Rangel. Of those 61, roughly 15 will be assigned to Southeast Asia?

Mr. Ingersoll. At this time; yes, sir.

I should point out also, Mr. Rangel, that we also have responsibility for controlling domestic traffic on an international level, as well. So most of our personnel are stationed within the United States.

Mr. Rangel. Well, let us talk about your domestic responsibilities. When I was prosecuting narcotics cases in the southern district of New York, I found that upward of 80 percent of the cases made by the Federal Bureau of Narcotics under the Harrison Act were addict pushers that were convicted in our office. Is that basically the same today?

I might add, in addition to that, that they were black and Puerto Rican.

Mr. Ingersoll. That is not true today, sir.

Mr. Rangel. So that if the major responsibility that you have is the internal flow of narcotics into this country, and you are restricted to 61 agents for the international trafficking of drugs, and the President of the United States says that your agency has the sole or the primary responsibility, let us see what we are talking about when you try to do your job to prevent the inflow of narcotics into the United States.

Number 1, is not your Bureau restricted in what it can do or say by the U.S. State Department?

Mr. Ingersoll. I am not sure I understand that question.

Mr. Rangel. Well, in your international travels for the purpose of restricting drugs from flowing into the United States, you have the opportunity to deal with political leaders of certain states, and isn't the extent of any agreements that you can enter into restricted by our State Department?

Mr. Ingersoll. Certainly the State Department has input in any agreements that we reach; yes.

Mr. Rangel. Let me put it another way: Do you have by law or policy any power to enforce any agreement with any foreign power?

Mr. INGERSOLL. I am not at all sure that I understand your question, Mr. Rangel.

Mr. RANGEL. I will rephrase it.

Mr. INGERSOLL. All right.

Mr. RANGEL. I am concerned that when the President of the United States says there is going to be a national effort to stop the inflow of drugs into the United States and then they go further and give this responsibility to your agency as to whether or not they have also given you the power to do anything about the international trafficking of drugs, and I see nothing in the law which empowers you to enter into any type of treaties or to apply any economic sanctions with the heads of any State.

Mr. INGERSOLL. When I am dealing with officials of foreign governments, I am acting as a representative of the President of the United States.

Mr. RANGEL. Now, as it relates to the Department of Defense, in inquiries that were made of you, you are unfamiliar even with the drug addiction problem as it exists within the military and this properly falls within the Department of Defense; is that correct?

Mr. INGERSOLL. I am not personally intimately acquainted but I have people on my staff who are well acquainted with the problem in the military.

Mr. RANGEL. But in connection with your primary responsibility of the internal flow of narcotic drugs, this responsibility is somewhat shared by the Department of Defense as relates to the military?

Mr. INGERSOLL. Yes. I would say that the control of drugs is shared in more ways than just that in the United States.

Mr. RANGEL. And as it relates to the CIA, they, too, have a responsibility to investigate the international flow of drugs; don't they?

Mr. INGERSOLL. They have no statutory responsibility that I am aware of. However, they do cooperate with us and provide a great deal of information about international traffic to us.

Mr. RANGEL. Now, how can you generalize the impact of the CIA information when Ramparts magazine, Congressmen Murphy and Steele, and your personal trip over there were really the source or the reasons why there has been some movement by the South Vietnamese?

Mr. INGERSOLL. I don't know that. I am not that familiar with CIA operations, and I just couldn't answer that question.

Mr. RANGEL. Well, I have a letter from the CIA which indicates that they have a very close—actually CIA has for some time been this Bureau's strongest partner in identifying foreign sources and routes of illegal trade and traffic—in other words, it seems to be from your agency as well as the CIA that there is a very close relationship that exists, as it relates to the international trafficking of drugs.

Mr. INGERSOLL. There is a close relationship in terms of sharing information and moving information back and forth, but I am not familiar with either the authority or the policy or the practices of CIA in terms of influencing other governments. But as far as operational information is concerned, the letter is precisely accurate.

Mr. RANGEL. Yet you believe, as you testified, that Congressmen Murphy and Steele's visits, coupled with your visit, was probably the motivating factor of having any reaction to the drug traffic as it relates to South Vietnam?

Mr. Ingersoll. No. I don't recall saying that, Mr. Rangel. I said that they were part of the motivating factor. I think that our Ambassador Bunker, for example, in Vietnam, has probably been the major energizer, as far as that operation there is concerned. Our embassies have the responsibility for carrying on U.S. policy in foreign countries.

Mr. Rangel. Well, then, that would be by far the most severe restrictions of the responsibilities of the Federal Bureau of Narcotics and Dangerous Drugs; would it not?

Mr. Ingersoll. Mr. Rangel, the Bureau of Narcotics and Dangerous Drugs, aside from myself as the U.S. representative to the U.N. Commission on Narcotic Drugs, is not involved in negotiating with foreign governments agreements to develop a policy as to whether, for example, opium is going to be produced or not going to be produced.

Our people are over there to work with those governments in a variety of modalities. One is to train the police, to assist in their training, to provide them information which will improve their operations, to assist them in their operations. But we have no unilateral or separate authority in a foreign country to enforce the law of that country and our presence there is to protect the interests of the United States as best we can with the limited resources we have, and with the restrictions that are placed upon us by the foreign government concerned.

Mr. Rangel. Now, that satisfies my questioning—as to the impact that you could possibly have on any host nation.

Now, as it relates to your domestic responsibility, you have recently increased your number of agents from 500 to roughly 1,300, 1,500, and at the same time the drug addiction population has exploded thousands of times in the last 10 years. So that it is safe to say that no matter how many men you have, that you will not be able to decrease the amount of drugs that is coming into the United States at the present time?

Mr. Ingersoll. I can't completely agree with that—with the conclusion of that, but I agree, and as I said before, that law enforcement by itself without support of other programs is not going to solve the problem.

Mr. Rangel. We are not talking about the socioeconomic programs. I am merely talking about patrolling our borders and stopping the importation of drugs into these United States. Certainly the doubling of men, almost tripling of men, has had no evidence of a decrease in importation.

Mr. Ingersoll. Let me point out, sir, that doubling or almost tripling has occurred only in the last 2 years. During the period up until 1968, the old Federal Bureau of Narcotics only had 30 more people than it had in 1960. Between 1960 and 1968 the money that was provided to the old Bureau of Narcotics increased at a rate of less than 1 percent per year, and as you have just said yourself, this is when the explosion in drug abuse occurred in this country. We are doing our best right now to catch up with a problem that was ignored for decades.

Mr. Rangel. Mr. Ingersoll, believe me——

Mr. Ingersoll. And I think law enforcement hasn't been given the opportunity to demonstrate what it can do, given the necessary resources, given the support, and all of the other things to go into effective law enforcement programs.

Mr. Rangel. Please, I am not trying to be critical of the efforts, the terrific efforts and gains that have been made by your limited police force. My real question is: Is it fair for me to assume that a 1,300- or 1,500-man force, assuming they are split up into tours and duty, will have any possible deterrence on the importation of drugs into the United States?

Mr. Ingersoll. I think that remains to be seen, and I am sure that a 1,300-man operation by itself will not, but in addition to that, in the last couple of years we have trained tens of thousands of other police officers who had absolutely no knowledge of drug control techniques at all before that. We have assisted governments of other countries, in their efforts to develop their own domestic and international operation. What I am trying to say, Mr. Rangel, is that these things have just started, in fairly recent times, and we are trying to catch up with a problem that is practically engulfing us.

Mr. Rangel. What I am trying to say, Mr. Ingersoll, is: the President of the United States has promised in broad terms a national offensive against drugs being imported into these United States.

And certainly the American people are anxious to hear that we do have a commitment against this.

However, we are restricted in extending credibility to the remarks made by the President, by your testimony, which indicates that as of the present time you have no international powers; first of all, that your agency has the prime responsibility of preventing drugs from coming into the United States and we all recognize the international restrictions that your Bureau would have.

Second, that you have a very limited amount of men that are on duty, 61 in foreign countries, with no powers. You have 1,300 men on duty in this country and certainly we don't believe that they have the tools to work with to do any more than just make a dent in the importation of drugs, just make a dent, and it seems to me, and I don't know whether you agree, that unless we can have more executive power being used against these nations, that there will not be an all-out offensive against drugs being imported into the United States.

Mr. Ingersoll. Mr. Rangel, it is fair to say that we could use our resources and our assets more productively and in a more positive way, and this is one of the areas that we are presently exploring.

But let me tell you what the 61 men have done so far this year. They have, with foreign authorities, seized over 2,000 pounds of opium, over 1,500 pounds of morphine base, which is the equivalent of 15,000 pounds of opium, 15,000 pounds of opium, sir, 220 pounds of heroin, 130 pounds of cocaine, 27,000 pounds of marihuana and 7,902 pounds of hashish. That is what those 61 men have been able to accomplish in collaborating with foreign police agencies and I say that they have done a pretty good job.

Mr. Rangel. I would say they have done an outstanding job.

Mr. Ingersoll. In addition to that, in the first 6 months of this year they participated in the arrest of 113 major international traffickers outside of the United States.

Mr. Rangel. I am not questioning the tremendous job that is being done with your limited force. What I am really questioning is whether or not your agency as it presently exists, with its restricted power can fulfill the vow made by the President of the United States last night.

Mr. INGERSOLL. I don't think that pledge was made in a vacuum, Mr. Rangel. I think it was made with the intent to develop the capability of carrying it out.

Mr. RANGEL. But this could not possibly be done with the restrictions presently placed on your agency.

Mr. INGERSOLL. Let me point out to you, sir, section 503 of Public Law 91-513, subsection (b), which says:

> When requested by the Attorney General, it shall be the duty of any agency or instrumentality of the Federal Government to furnish assistance, including technical advice, to him for carrying out his functions under this title.

I think that we have the potential in law to get the job done.

Mr. RANGEL. That you can enter into an enforceable treaty relationships with offending nations?

Mr. INGERSOLL. We have already negotiated a treaty, a protocol agreement, with France, at the police level. My agency and the French Surete have entered into an agreement which was signed respectively by the Ministerior of Interior of France, and the Attorney General of the United States, that formalizes a process which has gone on for years, to exchange information, to exchange personnel, and to cooperate in every possible way.

The protocol defines the authority that our people have in France, the authority their people stationed in the United States will have. I have the authority to enforce that treaty. This is the first agreement to my knowledge that has ever been made between law enforcement agencies of two different countries to enforce laws.

Mr. RANGEL. Tell me, please, how you could enforce that treaty.

Mr. INGERSOLL. How can I enforce the treaty?

Mr. RANGEL. Right.

Mr. INGERSOLL. Because the responsibilities or obligations are placed on both parties, both signatories to the agreement.

Mr. RANGEL. If a foreign nation breaches this treaty agreement that has been entered into by your department and their similar department, how do you enforce it?

Mr. INGERSOLL. How do you enforce a breach of any treaty, any breach of a bilateral treaty? You complain about it. What can you do beyond complain? In a bilateral treaty you can't carry it—or perhaps, maybe you could carry it—to the International World Court of Justice, depending upon the provisions used to negotiate treaty infractions, but this is not my field and I just can't answer your question.

Mr. RANGEL. I thought the Congress had the powers to advise and consent on international——

Mr. INGERSOLL. This is not that kind of a treaty and I can't give you the technical details off the top of my head as to why we didn't have to go to the Senate, but I know that we were not required to do so.

Mr. RANGEL. My last question is that it seems as though there has been some difficulty in identifying the illicit production of poppy crops throughout the world. Is there a problem there of identifying these poppyfields.

Mr. INGERSOLL. I am not aware of any difficulty. The poppy, even before the flower blooms, has a very distinctive color that readily distinguishes it from other vegetation in the area.

Mr. Rangel. Will your Bureau have information as to where the major poppyfields are throughout the world?

Mr. Ingersoll. Yes, sir.

Mr. Rangel. That means that you always did have the information that Congresman Steele and the rest brought in their dramatic report, that this information was already within your department.

Mr. Ingersoll. I think, certainly, the locations of poppy cultivation have been well-known to the U.S. Government for years. And to the United Nations, I might add. No question about that.

Mr. Rangel. I have no further questions.

Chairman Pepper. Mr. Murphy.

Mr. Murphy. Mr. Ingersoll, speaking about the United Nations and Interpol in particular, do you think that we could gain anything by contribution to Interpol? When I was there they had a filing system on various people who have been arrested and tried. Now, they said they would like to have the United States contribute more to this and put the filing system on some kind of IBM computer.

I am just wondering whether you, as a professional policeman, feel there is anything to that suggestion? Should we be more active? We dont' even have radio communication with them as other nations do.

Mr. Ingersoll. Well, Mr. Murphy, Interpol is, first of all, contrary to the myths that have developed around it, only an information collecting organization.

Mr. Murphy. Only an information center.

Mr. Ingersoll. Its techniques are aimed at servicing the least equipped client countries, and when I first went to Interpol I saw the same file that you did. I saw their Morse code systems. I suggested that they use computers and that they use more modern communications facilities, and the response that I got was, "we can't do that because then these underdeveloped countries won't be able to communicate with us."

So they have persisted in using equipment that is extremely primitive by today's standards. What good a computer would do them, I don't know.

Mr. Murphy. Tell me this: Has your Bureau received any information from Interpol that has led to an arrest or helped in a conviction on this international drug traffic?

Mr. Ingersoll. Yes, indeed. My office in Paris is the primary liaison with Interpol, and since we have an office located right next door to Interpol, this is one of the reasons, over the years, why we haven't tied into the communications system in a large scale. But we do receive messages from Interpol which assist our operations, primarily in Europe.

Mr. Murphy. Mr. Ingersoll, taking Mr. Rangel's line of questioning, I think what he was trying to say and what I will try to say in this question, is that we in the Congress want to know in what way we can aid your Bureau and yourself in the job you are doing. What can the Congress do to help in this battle to stem the tide of this heroin addiction?

That is our function here. We want to do it and we want to hear from you if you have any suggestions. We want to be helpful.

Mr. Ingersoll. I know you do, and I know that this was the sentiment behind Mr. Rangel's question, but I am afraid at this time I have to give you the same answer I gave Mr. Waldie. I will be very happy to discuss these matters with you in executive session but as you well know, I work for the executive branch of the Government and my activities properly have to be cleared through people that I work for.

Mr. MURPHY. Well, I am of the opinion that this is such an important problem in the United States, Mr. Ingersoll, that I say to my colleagues and the chairman that I think your position within the Councils of Government should be raised to a level of almost Cabinet strength because it is such an important question today.

Every time I go home and I know every time Mr. Rangel and Mr. Brasco go home, we are constantly besieged by mothers and people affected by these drugs.

So I think if I have any recommendation, it is that the President, take this into consideration in his designation of your office and elevate it to the importance it deserves.

Mr. RANGEL. I would like to share in those remarks, Mr. Chairman, and I am glad that Mr. Ingersoll did recognize the primary thrust that I have in that in dealing with the Federal Bureau of Narcotics——

Mr. INGERSOLL. Narcotics and Dangerous Drugs now, Mr. Rangel, please.

Mr. RANGEL. It appears notwithstanding these newly created treaty powers that you have, that it is not on that level of Government commitment that it should be on. And, Mr. Chairman, if I could just ask one question to clear up a question that was asked by Congressman Sandman, and I will be finished.

There seems to be, in your testimony, a direct connection between the use of marihuana or the condoning of marihuana and also the addiction to hard-core drugs, and early in your testimony you indicated that those of us that either come from or represent inner-cities have been asking for more national attention to be focused on the drug problem.

Would you agree that in communities such as Harlem and Bedford-Stuyvesant that we have not and never did have any major marihuana problem, but, in fact, it is a hard-core drug community and our drug addicts don't go through the trips that other communities may have suffered?

Mr. INGERSOLL. Well, I think, in general, that is quite accurate and, of course, I also think that we ought to point out that the problem in Harlem and Bedford-Stuyvesant issued from different causes and has been endemic in these areas for many, many, many years. What I am trying to do in contemporary terms is place the problem in its present perspective. Basically, that is, that if you have a society or a group that demonstrates its susceptibility to drugs, then you are going to have people who will exploit those people, and you can't correct this problem by just going down one avenue of approach. If we haven't learned this already, we certainly should do it soon, and begin to fully deal with the problem on several levels and several fronts.

The CHAIRMAN. Mr. Brasco, did you have a question?

Mr. BRASCO. Yes; I did have one last question of Mr. Ingersoll.

As I understood you to say before, Mr. Ingersoll, you and your Department have a division which is doing some research work; is that correct?

Mr. Ingersoll. That is correct; sir.

Mr. Brasco. And I understood you also to say that you are working on some substance that might possibly be used to immunize people from the effects of narcotics.

Mr. Ingersoll. We are in a very preliminary stage of investigating that possibility.

Mr. Brasco. You know, listening to the dialog here, and I think that you are absolutely right, in terms of having to attack this on various levels, but I kind of suspect that the difficulty that we have here, controlling the supply and the traffic, is only magnified when we try to get involved in foreign countries.

I am not saying that we shouldn't do that. But it comes to the question that has always been disturbing me, as to whether or not we are doing enough in this research area.

Several witnesses have appeared before this committee and have touched on the research area with methadone, and briefly in terms of the fact that there may be in the wind some prospects of getting a longer lasting drug other than methadone.

Now you talk about immunization, and I am wondering, are we doing anything in this area of research or is this another one of those late start areas?

Mr. Ingersoll. I think that is correct; yes, sir.

Mr. Brasco. A late start area.

Mr. Ingersoll. Yes.

Mr. Brasco. Well, let me ask you this, then. It would seem to me that one of the things that you are talking about, immunization, should be the star emphasis of this or any other administration. I am wondering what your resources are to follow that program that you speak of.

Mr. Ingersoll. It is not really within our sphere of responsibility to do it. We are just trying to examine the proposition in a preliminary way to see whether it has any possible merit.

Mr. Brasco. Well, is anyone else doing it that you know of?

Mr. Ingersoll. Not to my knowledge.

Mr. Brasco. I am told, by our counsel, that the National Institute of Mental Health is doing something.

Mr. Ingersoll. I was just told that we are working with one of their employees—one of their staff people.

Mr. Brasco. Do you have any idea what that budget is, in dollars and cents?

Mr. Ingersoll. For this particular project?

Mr. Brasco. Yes.

Mr. Ingersoll. It would be miniscule at this time because again, it is something we have just started examining in the last month, 2 months.

Mr. Brasco. Let me ask you one other question. Is there a possibility of developing some type of sensor or sensitive equipment that could pick up drugs as they come across the border?

Mr. Ingersoll. We are working on such a development at this time.

Mr. Brasco. But that is another late-start development?

Mr. Ingersoll. It is another late start.

Mr. Brasco. With no money.

Mr. Ingersoll. No; I wouldn't say that, sir.

Mr. Brasco. Or little money.

Mr. Ingersoll. We have put quite a bit of money into this. Again, we are getting off into an area that I can't discuss openly, primarily because I don't want to let everybody on the other side know what we are doing. But it takes time to develop these things. Whether you put a lot of money in or a little bit of money, you can only buy a certain amount of brainwork, and this is essentially what we are dealing with.

However, I can report that we are in the pilot test phase of one of these kinds of devices at this time.

Mr. Brasco. I would think that that would be the saddest situation of all, if in this country we couldn't—and I just can't believe that we can't—develop the necessary scientific knowledge to beat this problem.

I know it is difficult to put all the pieces together at one time, find the necessary brainpower and the necessary money to go headlong into a crash program to try to come up with something that is more effective than what we have at the outside now: methadone.

Mr. Ingersoll. I can assure you, Mr. Brasco, that we know what the technology is or the theory is involved in this and we have produced an instrument. It is being pilot tested now. It has proven to be very successful. It is a very large thing and we have got to be able to reduce it, miniaturize it, so it can be a more practical tool.

Mr. Brasco. One last thing. I noticed in your testimony you spoke about methadone getting into the streets. I wasn't concerned about the statistics at this point. When it is brought into the street, it is not used orally, is it; or is it used to shoot up, as one would use heroin?

Mr. Ingersoll. It may be used in any way. It depends upon the form it is in. If it is in tablet form, it will probably be dissolved and shot.

Mr. Brasco. That is exactly what I mean. It would seem to me if one was taking it orally, you don't get the same effect as you do from taking it intravenously.

Mr. Ingersoll. That is right.

Mr. Brasco. And orally would indicate to me an addict wanted to taper off and that puts him, I would think for practical purposes, in a much less-harmful position toward society than if he is using it intravenously. Why can't we just make it in such a form that it can't be shot up?

Mr. Ingersoll. Since methadone also has therapeutic utility as an analgesic, it is manufactured commercially not only for withdrawal or maintenance programs, but also for other treatment purposes.

Mr. Brasco. So that you are saying we do need the tablets?

Mr. Ingersoll. May Dr. Lewis respond to that?

Mr. Brasco. Yes.

Dr. Lewis. I think one of the major manufacturers of methadone has evolved a tablet which is very difficult to dissolve, so that for injectable purposes, that particular tablet would not be acceptable to the addict who wants to inject.

Mr. Brasco. Well, as I understand it, Doctor—you stop me if I am wrong—the substance that is used to drink, the orange juice, the oral that you drink, that if you tried to reduce that to liquid it becomes gummy, so that type you can't shoot up. But it would just seem to me that the tablet should be able to be produced in the same way if we even need a tablet.

It seems to me, at this point, the hearings have only indicated to me that the only need for the tablet is one of convenience, so that rather than one carrying eight bottles around for an over-the-weekend supply, they take the tablets.

Now, I am not aware that the tablets are used for any other purpose, other than one of convenience, and if that is the only purpose, I would think we should do away with them, if that is causing a problem in the streets.

Mr. Ingersoll. Well, as far as the maintenance programs are concerned, our regulations and FDA's protocol require oral administration under close supervision. The use of tablets or liquid that can be used for injection is not allowed. The methadone being prescribed by these physicians that I talked about earlier, who are operating outside the scope of the guidelines can be used for injection.

Their traditional attitude is that the Government can't dictate to them how to treat their patients or how to prescribe to their patients.

Mr. Brasco. Is there a legitimate use for these tablets at this point? Can't we just outlaw them or prevent them from being manufactured?

Mr. Ingersoll. I would like Dr. Lewis, again, to give a medical clarification on that.

Mr. Brasco. This is one of our problems. We are manufacturing these things now.

Dr. Lewis. The prime use of methadone has been for analgesia. It is a milder analgesic than some of the others we have, but it is effective. It has an antitussive effect to reduce irritative cough, and in sirup form it is especially good for that. The old-fashioned manufactured tablet still has some value. It does have insipients in it which. if an individual dissolves it and injects it, makes him likely to have some untoward effects.

Mr. Brasco. But wouldn't we be better off—when you measure the benefits the tablets have, as opposed to its defects when it goes into the streets and is shot intravenously—wouldn't we be better off without the tablet? I mean if it is just used for colds.

Dr. Lewis. I think as far as the street form of the problem is concerned, we would be better off without any form suitable for injection, whether it is an individual tablet or Tang suspense or lime juice suspense or something of that sort.

Mr. Brasco. But you say we can do that.

Dr. Lewis. Yes.

Mr. Brasco. Get a form that is not capable of being injected?

Dr. Lewis. Or virtually incapable.

Mr. Brasco. Thank you. I have no further questions.

Chairman Pepper. Mr. Ingersoll, just a question or two.

What percentage of the heroin that comes into this country would you say comes from the laboratories of France?

Mr. INGERSOLL. Well, that is the same kind of question, Mr. Chairman, as what percentage comes from Turkey. Again I am going to say that the overwhelming majority appears to come from that source.

Chairman PEPPER. We had testimony this morning that some 1,100 people in the city of New York die every year from heroin. You said at least a majority of that heroin comes from the laboratories of France. Now, then, that is almost 100 New York City residents a month who die from that substance.

Now, if some people with evil minds had some of these movable rockets that they use over in Vietnam, and they go around over France and every day shoot some of those rockets, landing in New York City and kill on an average, let's say, about three or four people a day, about 1,100 people a year, you can imagine what public opinion in this country would be demanding of the French Government to stop that sort of thing.

If they didn't do it, we would see if we couldn't find some way to stop it, ourselves.

Now, I would like to ask you, in view of your reference to the agreement that has recently been negotiated with the police of France, how many police, how many law enforcement people are trying to break up these laboratories from which this heroin comes to the United States in major supply? How many police officers does the French Government have committed to doing that, to stopping it?

Mr. INGERSOLL. At this time, may I give you a historical perspective?

Chairman PEPPER. Yes.

Mr. INGERSOLL. A year and a half or so ago, when I testified before you the last time, they had, as I recall 16 or 18. Today there are about 100 French police engaged in international traffic control.

Chairman PEPPER. One hundred.

Mr. INGERSOLL. Practically.

Chairman PEPPER. At least that is a step up. They started off with a lower number. They extended it to 100.

Mr. INGERSOLL. It is not quite 100.

Chairman PEPPER. Now, France is a big country and a powerful country and they have a lot of assets. Don't you think we would have a right to ask a friendly country like that, from which was coming a substance that is killing so many of our people and costing us so much money, that they put more than 100 people to helping us keep these laboratories from spilling out, spewing out so dangerous a substance to our country?

Mr. INGERSOLL. We have the right to ask the government in any other country around the world to do things that we would like them to do.

Chairman PEPPER. Well, it would seem to me we would be justified in being very insistent, if they want to be our friends, that they take the emergency measures.

Now, the President is talking about an emergency program and we hope the President is going to implement that, an all-out fight on trying to do something about heroin to stop the terrible tragedy that our country is experiencing from heroin, and it would seem to me that with great earnestness we would have a right to tell the Government of France that we expect them, as our friend, to treat this on an emergency basis because it is a very grave danger to the lives of our people and to the security of our country, and we are just going to have to ask them, if they treasure our friendship, to take emergency measures with us to stop this.

Mr. INGERSOLL. I don't know that we put it quite in those terms but they are certainly well aware of the concern we have.

Chairman PEPPER. I don't know what favor we are doing the French. We have been long-time friends.

We are committed to go to a nuclear war if a French city were attacked by a nuclear power, by any other country, and we are spending a lot of money to maintain that capability and we expect to live up to our obligations, and it would certainly seem to me that we would have a right not only to ask but to demand of them if we are going to commit ourselves to defend your cities, maybe to the destruction of our own country, we expect you to help us defend our own people from an aggression of such a sort that is coming from your country into us.

Now, the other thing I wanted to ask you: Is your agency, the Bureau of Narcotics and Dangerous Drugs, providing any money for a research program into synthetic drugs or into blockage drugs or immunizing drugs?

Mr. INGERSOLL. Our research authority is restricted by law, and we are not investing any substantial amount of money in any of those areas because that is principally the responsibility of the National Institute of Mental Health.

Chairman PEPPER. Are you providing any money for a national treatment and rehabilitation program?

Mr. INGERSOLL. No, sir. That is completely out of our sphere.

Chairman PEPPER. My last question here is this. You have indicated here today out of your great knowledge that if we are going to mount a massive assault on heroin in our country, it has got to have many facets. We have got to carry on an effective and extensive research program, an effective and extensive rehabilitation program, and an extensive law enforcement program, at least those elements must be a part of any effective all-out fight upon heroin; must it not?

Mr. INGERSOLL. Yes, sir.

Chairman PEPPER. Thank you very much. You are very kind and very helpful.

Mr. INGERSOLL. Thank you very much, Mr. Chairman.

Chairman PEPPER. The committee will adjourn until 10 o'clock tomorrow morning in this room when the first witnesses will be Dr. Edwards and Dr. Gardner.

(Thereupon, at 1:40 p.m., the committee adjourned, to reconvene tomorrow, Thursday, June 3, 1971, at 10 a.m.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

THURSDAY, JUNE 3, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:15 a.m., in room 2325, Rayburn House Office Building, the Hon. Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Brasco, Mann, Rangel, Wiggins, Steiger, Sandman, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief council.

Chairman Pepper. The committee will come to order please.

The Select Committee on Crime is today continuing its hearings into various aspects of the heroin addiction crisis. Yesterday we received valuable testimony from John Ingersoll, Director of the Federal Bureau of Narcotics and Dangerous Drugs. What he told us about the rapidly increasing rate of heroin addiction among soldiers in Vietnam certainly does not bode well for the future of our country.

In fact, Mr. Ingersoll's testimony on that subject and on the limited ability of this country to effectively halt heroin smuggling makes all the more important the testimony we are going to receive today. For today the committee once again turns its attention to the scientific aspects of fighting drug addiction. Given our inability to halt or significantly decrease the flow of heroin into our country, as long as it is cultivated legally elsewhere, we must concentrate our attention and our resources on seeking new and creative means of curing drug dependence. After all, it is the drug addict who is the market for those people who smuggle heroin into our country.

Our investigations lead me to believe that the creative genius of our country can be utilized in order to produce new drugs to combat heroin addiction. If there is a substantial possibility of developing more effective and longer lasting blockage drugs or effective nonaddicting antagonistic drugs, then there seems to be no reason for our Government's failure to expend its energies and resources in the development and use of such drugs. Further, if our scientists can possibly develop a vaccine which could be used to immunize our population against the euphoria of opiate base drugs, then it is our responsibility to see that these laudatory projects are properly funded and that sufficient manpower is committed to the completion of such worthwhile endeavors.

You heard yesterday Mr. Ingersoll's estimate that some \$3½ billion to \$4 billion may be the total cost of heroin addiction to this country.

Any reasonable amount of money, including even hundreds of millions of dollars, would be a very wise investment if we can find something that will be an antagonistic, blocking, or immunizing drug.

The testimony this committee has heard so far on the use of methadone as a maintenance drug indicates that while methadone is far from perfect, it is a very helpful tool in combating heroin addiction. Yet methadone maintenance was developed by two New York doctors working on a shoestring budget. If this major advance can be accomplished with limited financial resources, think of the great progress that could be made if a massive Federal commitment to research, adequate research, were undertaken. Considering the enormous cost of drug abuse to this country in terms of crime, relatively unsuccessful attempts at law enforcement, and other direct and indirect drug-related expenditures, such a commitment must indeed be massive. If we do not move effectively and massively in our attacks against this problem, we aren't going to accomplish anything very much. We had testimony in our hearings in New York from competent court officials that 48 percent of the cases in the courts of general jurisdiction of the Bronx and New York County were attributable to drugs, and another 25 percent were related to heroin because they grew out of people committing crimes in order to get the money to sustain drug addiction.

So 73 percent of the cases in these courts were related to the drug problem. In fact, these prosecuting attorneys said that if it were not for the fact that they take guilty pleas from defendants, the best plea they can get, their court system would absolutely break down.

That shows another one of the ramifications of this drug problem.

Mr. Ingersoll told our committee yesterday that drug abuse costs the United States in the area of $3½ to $4 billion annually. This staggering amount is in stark comparison to the relatively small sum spent by the Government in combating drug abuse. It would be safe to predict that an allocation of substantial additional funds to combat the drug problem would amount to an economic saving in the long run, not to speak of the lives and the careers that would be saved.

What kind of research is underway, what kind of research could be undertaken if the necessary funds were available, what kind of results could we expect from a massive Federal commitment to research. These are some of the questions we will ask today and tomorrow. We have some of the most responsible people in our country here to advise and counsel with our committee.

Our first witness this morning is Dr. Charles C. Edwards, Commissioner of the Food and Drug Administration.

Following graduation from public schools in Kearney, Nebr., he attended Princeton University from 1941 to 1942, and received his bachelor's and medical degrees from the University of Colorado in 1945 and 1948. In 1956, he earned a master of science in surgery degree from the University of Minnesota.

He spent 5 years in the private practice of surgery from 1956 to 1961, and served as a consultant to the Surgeon General, U.S. Public Health Service, during 1961–62.

Dr. Edwards was director, division of socioeconomic activities, American Medical Association from 1963 to 1967, and was the AMA's assistant director for medical education and hospitals in 1962 and 1963.

Dr. Edwards held a surgical fellowship at the Mayo Foundation, 1950–56, a teaching fellowship at the University of Minnesota, 1949–50, and interned at St. Mary's Hospital in Minneapolis, 1948–49.

Prior to joining the Department of Health, Education, and Welfare on December 1, 1969, he was vice president and managing officer, health and medical division, in the firm of Booz, Allen, & Hamilton, Inc., Chicago, Ill.

Appearing with Dr. Edwards is Dr. Elmer A. Gardner, consultant to the Director of the Bureau of Drugs of the Food and Drug Administration, and director of program and evaluation and development of Milwaukee County Mental Health Services.

Dr. Gardner received his medical education at the State University of New York College of Medicine at Syracuse. He has served on the faculties of the University of Rochester and Temple University in Philadelphia.

He has served as chairman of the American Psychiatric Association Task Force on Automation and Data Processing in Psychiatry and as a member of the American Psychiatric Association Task Force on Standards. He was recently named to the board of the American Psychiatric Association Journal of Hospital and Community Psychiatry.

He is also the author of numerous books and articles.

We are also pleased to note that Dr. John Jennings is with us. Dr. Jennings is Associate Commissioner of the Food and Drug Administration. We are very much pleased, Dr. Edwards, to have you and your associates here today.

Mr. Perito, would you examine.

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Edwards, you have submitted a prepared text; is that correct?

STATEMENT OF DR. CHARLES C. EDWARDS, COMMISSIONER, FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. ELMER A. GARDNER, CONSULTANT TO THE DIRECTOR, BUREAU OF DRUGS; AND DR. JOHN JENNINGS, ASSOCIATE COMMISSIONER FOR MEDICAL AFFAIRS

Dr. EDWARDS. That is correct.

Mr. PERITO. Would you care to read your prepared text or summarize it, as you wish?

Dr. EDWARDS. I think I would prefer to read it, if you don't mind, and then we will be delighted to answer any questions that any of the committee members might have.

Mr. PERITO. With the chairman's permission, you may proceed.

Chairman PEPPER. Go right ahead.

Dr. EDWARDS. Thank you, Mr. Chairman, and members of the committee. We do appreciate this opportunity to discuss with you current research in the treatment of narcotic addiction.

As you have pointed out, we are all aware of the extent of the drug abuse problem and the increasing public concern about heroin addiction, in particular. A variety of therapeutic approaches, many with some partial success, have been utilized over the past several years—

ranging from chronic hospitalization through residential programs, to outpatient psychotherapeutic efforts. The time, the manpower, and the money required in all of these approaches have resulted in only limited success, making a successful chemical therapeutic agent an attractive alternative.

This has resulted in a search for a medication that would do the following: Block the euphoric effect of heroin for addicts, prevent withdrawal symptoms, be nonaddictive, be effective orally, be long acting, be free from toxic effects, and compatible with normal performance and reasonable behavior. The addict would have to be freed of his craving or hunger for heroin.

Methadone, as you know, is currently under study for the maintenance treatment of narcotic addiction. It has been an effective analgesic since it was synthesized at the end of World War II. Although for more than a decade it has been known that low oral doses of methadone would allay withdrawal symptoms, it was not until 1963 that it first was observed that large oral doses could block the euphoric effects of even high doses or other opiates or synthetic narcotics. Thus, the current widespread interest in methadone for the maintenance treatment for heroin addicts.

Methadone is a marketed drug that has been approved through the new drug procedures of the Food and Drug Administration, for three specific uses: As an analgesic, an antitussive, and for treatment of withdrawal symptoms in heroin addiction. The last refers to the short-term treatment of the acute symptoms resulting from the withdrawal of heroin from those who have become physiologically dependent.

Maintenance treatment of heroin addiction with methadone is investigational because substantial evidence of its safety and effectiveness for this use is not yet available. The law defines "substantial evidence" as meaning evidence consisting of adequate and well-controlled investigations, including clinical investigations, by experts qualified by scientific training and experience to evaluate the effectiveness of the drug. Although there are studies which suggest that methadone maintenance may be effective for some heroin addicts over a period of at least months, and perhaps even a few years, we have no good body of data or well-controlled studies that meet the required criteria.

We are only now beginning to obtain the kind of information which may eventually permit us to define the place of this drug in the treatment of heroin addiction.

Because it was available on prescription, the use of methadone for maintenence therapy became quite widespread following the early reports of success by Drs. Dole and Nyswander.

In order to collect the type of scientific data needed to support approval of a new use of a drug, it was necessary that the maintenance programs follow protocols, protocols which include recordkeeping, that could in fact yield such data. Investigational studies of methadone present problems not encountered in studies with other types of drugs because it is an addicting narcotic with a proven capacity for abuse.

Therefore, to protect the community from the hazards of diversion and abuse, and to assure the development of valid data, guidelines for methadone maintenance studies were developed through the cooperation of the National Institute of Mental Health, the Bureau of Narcotics and Dangerous Drugs, and the Food and Drug Administration. These guidelines were published in the Federal Register on April 2, 1971. Prior approval of both the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs is required before such studies may be initiated.

Heroin addicts do not constitute, as you know, a homogeneous population and proper treatment requires that we have some knowledge about which addicts may benefit from this treatment approach in contract to other types of therapy.

Some investigators have reported that 70 to 80 percent of treated addicts are rehabilitated as judged by reduction in criminal activity, improvement in employment status, or schooling. But most of these reports have not given adequate consideration to the bias produced by patient selection. Some idea of the difficulty of interpreting such studies can be gained from a most recent evaluation of one of the best known programs. Although the program had a very broad criteria for admission, more applicants were not admitted, and I emphasize not, to the study than were admitted.

In general, those patients admitted to the study and remaining in treatment, when compared to the overall heroin addict population, tended to be older, more often white, and in better health. This group, which had an improved employment status and reduced criminality, was not representative of the total heroin addict population. Therefore, this study, as well as others reported to date, cannot be used to generalize the results for the entire addict population.

Whether those not accepted for treatment would have fared as well as those accepted of course is as yet unanswered. Reports have not provided the kind of data that enables better patient selection.

Also, data are needed to distinguish the role played by the drug itself from the role played by the psychological, the social, and the occupational rehabilitative efforts in such programs; and marked proliferation of programs may produce many in which only the drug is used and no rehabilitation is provided.

Methadone maintenance treatment may be a valuable therapy in reducing heroin addiction, but we believe it is wise to proceed cautiously in moving toward its general prescription use for this purpose. We need better evidence to determine the safety of this treatment. It is well to bear in mind that methadone maintenance treatment represents substituting methadone addiction for heroin addiction and does not represent the absence of drug addiction. One of the hazards of methadone treatment is that young drug users who are not physiologically dependent on heroin might become addicted to methadone as a result of treatment. Another hazard stems from the possibility of death if a nonaddict takes the usual maintenance dose of methadone intravenously or because of the addictive effect, if an addict "shoots" methadone while still taking heroin. We do not wish to have a potentially valuable therapy discredited because of its misuse by some practitioners while its efficacy is being evaluated.

We now have some 257 investigational new drug exemption (IND) numbers assigned to sponsors representing 277 methadone treatment programs. Of these, 185 programs are institutional programs. The remainder are being carried on by private practitioners. However, at present, no application is being approved unless the program can study an adequate number of patients to yield meaningful data regarding the safety and efficacy of methadone.

We have requested 6-month status reports from these programs instead of the customary annual reports, in order to obtain adequate data as soon as we possibly can.

We expect our recently published regulations to serve as a valuable tool in insuring compliance with existing requirements. In this regard, we have recently undertaken a program for the inspection of all methadone maintenance studies. By mid-July, we will have completed inspection of an initial 40 to 50 programs throughout the country, selected on the basis of various criteria.

In addition to achieving correction of any deficiencies, we hope to stimulate improved practices and better data collecting procedures. In these inspections, whenever possible, medical officers from our Bureau of Drugs of the Food and Drug Administration will accompany district field inspectors. All of this will be done in close cooperation with the Bureau of Narcotics and Dangerous Drugs, which, in addition, has its own program for surveillance of the methadone studies.

Preliminary results of these inspections have demonstrated that at least some programs must be terminated. Action to do so has already been initiated in some instances.

When necessary, a sponsor will be given a time limit to correct deficiencies or face loss of his investigational status. However, before a program is terminated, we will contact local health departments, medical societies, and other approved methadone maintenance programs in an effort to insure that continuing treatment for the addicts is available. A letter has also been sent to all State and local drug program officials notifying them of our inspection program; I am submitting a copy of this letter to you for the record.

In addition to review by our own personnel, we have appointed a committee of outside experts to assist in evaluating data as it accumulates, as well as other aspects of the ongoing programs. The committee will also be called on to assist in reviewing any new drug applications for methadone maintenance.

The members of our advisory committee, some of whom have already appeared before your committee, are Dr. Henry Brill, Dr. Robert Milliman, Dr. William Bloom, Jr., Dr. Max Fink, and Dr. Sidney Cohen. In addition, we have contracted with Daniel X. Freedman, M.D., Dr. E. Leong Way, Ph. D., and Dr. Maurice Seevers to serve as consultants to this particular committee.

The concept of narcotic blockade has stimulated a search for other drugs, drugs with no addicting potential, with greater safety, and of longer duration than methadone. Acetyl-methadol promises some hope in that its duration of action is 72 hours in contrast to the 24 hours in which methadone remains effective. Thus, an addict could take his medication even under supervision, on a twice-weekly basis. However, the possible toxicity of acetyl-methadol needs further study.

Cyclazocine is another narcotic antagonist that has been studied for the treatment of heroin addiction. Its use has been limited, however, because it has some narcotic actions of its own, it can produce respiratory depression and it may be addicting.

Naloxone, recently approved for marketing as a narcotic antagonist, has some similarity to cyclazocine but lacks its narcotic actions, and in particular, does not produce repiratory depression. Naloxone has no reported addictive potential but its short duration of action, 4 to 6 hours, limits its usefulness. It has also, like cyclazocine, been tested on a pilot study basis for the treatment of heroin addiction. It is hoped that similar agents having the properties of naloxone, but a longer duration of action, can be synthesized.

To reduce the availability of addictive drugs, a variety of agents are being synthesized and tested to obtain a potent analgesic with no abuse potential. Four such analgesic agents are currently under investigation. In addition, the search continues for a safe and effective blocking agent in the treatment of heroin and other forms of addiction. Only a limited number of drugs have reached the stage of animal testing, and a very few have become available for clinical tests in humans. I can assure you that we at the Food and Drug Administration are extremely eager to expedite the investigation of any of these potentially good drugs and are working with various groups in order that this can be accomplished.

Mr. Chairman, we would be delighted to attempt to answer any questions that you or any members of the committee might have.

Mr. PERITO. Dr. Edwards, you have submitted for the record a letter dated May 14, 1971, subject, "Investigation of Methadone Maintenance Program"; is that correct?

Dr. EDWARDS. That is correct.

Mr. PERITO. Mr. Chairman, at this point I would respectfully offer for the record this two-page memorandum, with enclosure, submitted by Dr. Edwards.

Chairman PEPPER. Without objection, it will be received.

(See Exhibit No. 17(b).)

Chairman PEPPER. You may inquire, Mr. Perito.

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Edwards, to the best of your knowledge, how many addicts are presently being treated in the United States on methadone?

Dr. EDWARDS. May I ask Dr. Gardner to address himself to that? He is in charge of our total program.

Dr. GARDNER. I would estimate that about 20,000 to 30,000 are being treated. At the moment we have no really accurate figure, but this is our estimate based on what we know about some of the NIMH programs and other programs which have submitted progress reports to us. Our 6-month annual reports which have started to come in will be coming in over the next month or so, and should give us a better figure. The inspectional programs should also provide a better estimate of the number of addicts under treatment.

Mr. PERITO. I take it, Dr. Gardner, when you mention the figure of 30,000 addicts you are referring to 30,000 persons presently being treated in methadone maintenance programs; is that a correct assumption?

Dr. GARDNER. That is right.

Mr. PERITO. Do you have any idea how many addicts are being treated throughout the United States on a detoxification basis in addition to the maintenance basis?

Dr. GARDNER. No, I don't. That would be difficult to estimate because that would be done through all kinds of medical facilities, and really sporadically rather than through any routine or ongoing detoxification programs.

Mr. PERITO. Any practicing physician can dispense methadone for the alleged purpose of detoxifying an addict?

Dr. GARDNER. For withdrawal.

Mr. PERITO. For withdrawal or as an analgesic.

Dr. GARDNER. That is right.

Mr. PERITO. How do you define withdrawal? How long does that take?

Dr. GARDNER. Withdrawal as noted in our labeling for methadone and also as conducted in medical practice throughout the country takes from 10 days to 3 weeks. This represents the time for physical withdrawal.

Mr. PERITO. And if a physician should continue to prescribe methadone over a 3- or 4-month period, based on your statement, that would be maintenance.

Dr. GARDNER. That is right.

Mr. PERITO. What if any action can the Food and Drug Administration take in a situation where it is reported to them that a doctor, without an IND number, is prescribing methadone on a long-term basis rather than for the purpose of detoxifying an addict patient?

Dr. JENNINGS. Mr. Chairman, the use of a marketed drug for an indication that is not part of the labeling falls within the purview of the practice of medicine, and the Food and Drug Administration has only an indirect control or influence on the practice of medicine. We are responsible for approving drugs, for marketing, contingent upon demonstration of safety and efficacy for certain claims.

Methadone happens to be a narcotic with potential for abuse, and it is, of course, addictive. Therefore, until recently, it came under the Harrison Narcotic Act and is now subject, although we are in a transition period, to the provisions of the Comprehensive Drug Abuse Act, Public Law 91–513. The enforcement of that particular phase of the law is the responsibility of the Bureau of Narcotics and Dangerous Drugs.

Traditionally, in the past, the Bureau of Narcotics, and now its successor, the Bureau of Narcotics and Dangerous Drugs, has maintained that prescribing a narcotic substance for the sole purpose of catering to the habit of an addict was not a legitimate prescription and that a doctor who did this could be subject to penalties. I believe that situation still obtains under the Comprehensive Drug Act.

Therefore, if a private physician were to maintain a patient or a number of patients on methadone maintenance without filing an IND, he would not be in violation of any specific regulation that we are responsible for. We would feel that he is conducting an investigation and that he should file what we call an IND; that is, a notice of claimed exemption from the new drug regulations, and that he should submit data and annual reports to us, but we do not have any enforcing responsibility or capability.

We do not send our agents out to take any action against a doctor who might be using the drug in this way when it comes to narcotics.

Mr. PERITO. Do you recommend action by FBNDD based upon the information and knowledge that comes to you about a doctor, for example, who might be abusing methadone or allowing his office or clinic to be used for illicit purposes?

Dr. JENNINGS. We certainly would bring this to their attention.

Mr. PERITO. To the best of your knowledge, how many prosecutions have been brought in the past 5 years of doctors who have wrongfully abused methadone?

Dr. JENNINGS. I have no knowledge of that.

Mr. PERITO. Do you have any idea?

Dr. JENNINGS. I would think it would probably be very few.

Mr. PERITO. How many instances in the past 5 years has FDA recommended to BNDD that prosecution be initiated based upon what your Agency considered and concluded to be wrongful medical practice?

Dr. JENNINGS. I don't recall any instance except since our regulations went into effect and that is something that Dr. Gardner can speak of in detail. We did mention this to the chairman yesterday.

Dr. GARDNER. We have notified the BNDD about the illegal dispensing of methadone at least a few times in the last 3 or 4 months.

Mr. PERITO. Since the April 2 regulations went into effect?

Dr. JENNINGS. Yes.

Dr. GARDNER. Even before that, when we heard of one dispensing methadone illegally we have always informed BNDD about this.

Mr. PERITO. Is it fair to say, based upon your knowledge and understanding, that most of the diversion of methadone into the so-called black market is originating on the physician level and not the manufacturing level?

Dr. GARDNER. Yes; I think that is a fair statement.

Dr. EDWARDS. I think that is correct; yes. At least to the best of our knowledge it is.

Mr. PERITO. I assume that you are receiving continual data from the 277 methadone maintenance programs; is that correct?

Dr. EDWARDS. Now that the regulations have been published and have come into effect, we will be receiving this information on a twice-a-year basis from each of the programs.

Mr. PERITO. Dr. Edwards, if I understood your testimony correctly, you are investigating methadone to make a determination as to its safety and efficacy. Is that correct?

Dr. EDWARDS. Well, this, of course, is why we want to get all of this information from these various programs to determine its safety and efficacy.

Mr. PERITO. Prior to the promulgation of the regulations on April 2, 1971, were you receiving data from the various methadone maintenance programs?

Dr. EDWARDS. Do you want to speak specifically to that, Dr. Gardner?

Dr. GARDNER. We received some sporadic data, but nothing very systematic. Actually many of the programs have been initiated only during the past year. Usually, an IND holder reports to us on an annual basis. When we became aware of the abuse in some of the programs, we decided that semiannual reporting would be more appropriate for methadone programs.

Mr. PERITO. Dr. Gardner, when was the first IND permit issued?

Dr. GARDNER. The first one was issued to NIMH and that was in 1969. Most of the NIMH programs were not initiated until 1970.

Mr. Perito. Were you getting data from the Dole-Nyswander program back in 1963, 1964, when they first started experimentation?

Dr. Gardner. No. At that time there was no IND procedure for this and methadone for the maintenance treatment of heroin addiction was not specifically precluded or guided by any regulations.

Mr. Perito. Do you now have proper manpower in your agency to investigate the 277 methadone maintenance programs and protocols so that your Agency is able to make an informed judgment as to the safety and efficacy of such treatment programs?

Dr. Edwards. Manpower, as far as we are concerned, is a very scare commodity. Our inspectors in the field are involved in the food, product safety, and drug fields of activity. So the real answer to your question is no, but we have given this a very high priority in the agency and are expanding special effort in this area.

We consider this one of the major problems that we are confronted with and have diverted a lot of our manpower into this program. I must also say, however, that it takes a person with special training to really get involved in these programs, in the inspect programs such as this. Consequently, we are in the process of training some of our people in the inspectional techniques necessary to inspect these programs and to give us the kind of information we need at headquarters.

Mr. Perito. Do you know how many people FBNDD have assigned to work with you in conjunction with this effort?

Dr. Edwards. Not specifically.

Dr. Jennings. No, sir; but to backtrack a little bit to explain some of the background that Dr. Gardner referred to, until recently an investigator of any drug was entitled to begin his investigations as soon as he had filed with us his notice that he intended to do so. As a matter of fact, he was entitled to begin the investigations as soon as he had mailed in his application.

Mr. Perito. In other words, a licensed physician could start immediately without getting your prior approval?

Dr. Jennings. That is right. About a year ago, for reasons not directly related to methadone but to other investigational drugs, we promulgated a regulation that required a 30-day waiting period before he could begin his investigations.

When the methadone regulations went into effect in April, they contained still another safeguard. That is, that there would have to be prior approval, not only by the Food and Drug Administration but by the Bureau of Narcotics and Dangerous Drugs before the studies could be instituted.

We have now been informed that the Bureau of Narcotics and Dangerous Drugs is going to make an onsite investigation of each investigator prior to giving their required approval to the investigational new drug investigation. The studies that exist now were not subjected to this sort of scrutiny. Prior to April 2, they were approved by the Food and Drug Administration in the manner then part of our procedure; that is, the investigator's qualifications were examined, his protocol was reviewed, and if there was nothing obvious that would prevent the application trom being approved, it was permitted to go into effect in accord with the then current procedure, that is, a 30-day waiting period.

Now, because of our attention having been brought to certain abuses that Dr. Gardner can speak of, we have undertaken to examine these programs that are already set up. Some of them will be examined because we have reason to believe that they may not be measuring up. Others will be examined on the basis of getting a representative sampling of institutional and private programs, and as was indicated by Mr. Ingersoll yesterday, we believe that there will be actions taken against some of these in the very near future.

Mr. PERITO. Prior to the promulgation of the regulations on April 2, 1971, how long did your Agency have under consideration the proposed regulations?

Dr. EDWARDS. Quite some time. I think it was about 9 months, wasn't it?

Dr. JENNINGS. Yes, sir. The efforts on the part of the Food and Drug Administration to promulgate these regulations probably go back for more than a year. I can tell you that they did not initially meet with the unqualified approval of the medical community, the scientific community, and the people who are investigating the drug, and especially the strong proponents of methadone as a treatment for heroin addiction.

Mr. PERITO. Thank you.

Chairman PEPPER. Mr. Blommer, our associate chief counsel, do you have any questions?

Mr. BLOMMER. Yes, Mr. Chairman.

Dr. Edwards, is your agency at this time granting new IND numbers to investigate methadone maintenance?

Dr. EDWARDS. We are not granting any additional IND's for individual investigators, single investigators, that aren't part of an institution.

Mr. BLOMMER. If I understand your testimony here already, there are 30,000 individuals being maintained on methadone, is that correct?

Dr. EDWARDS. That is an estimate, but that is a rough estimate.

Mr. BLOMMER. And I assume that because you are granting new numbers, you feel that 30,000 is not a large enough figure or that there should be more people in methadone maintenance programs?

Dr. EDWARDS. I don't know if that is really the criteria. We are willing to grant an IND number to anyone that we think is, first of all, a responsible investigator that can provide the kind of information we need to fully evaluate the drug.

Now, I can't say whether we need 30,000 or 60,000 people. I can't give you a specific answer on what the exact number should be.

Mr. BLOMMER. Well, Doctor, if you find that methadone maintenance is either not safe or not effective, then you will recommend that all these methadone programs be closed down, I assume.

Dr. EDWARDS. That is right.

Mr. BLOMMER. I have no further questions.

Chairman PEPPER. Doctor, how many addicts does your agency estimate there are in the United States?

Dr. GARDNER. I think we have the same kind of rough estimate that anybody has, which is in the range of a couple of hundred thousand, maybe 100,000, 200,000.

Chairman PEPPER. And about 30,000 are on methadone maintenance.

How many would you say are being treated with other drugs?

Dr. Gardner. At this point in time, a very small number. The only other drugs that are really being studied with any kind of intensity are the derivative of methadone, acetyl-methadol, and some blocking agents as Dr. Edwards mentioned, cyclazocine and naloxone. The studies involving cyclazocine and naloxone do not include more than a few hundred patients.

Chairman Pepper. So if there are 200,000 or 300,000 heroin addicts in the United States, your opinion is that probably less than 50,000 are receiving treatment with some approved drug?

Dr. Edwards. On some approved drug, that is correct; yes.

Chairman Pepper. Well, now, Doctor, I would like to have the record show clearly what the function of the Food and Drug Administration is. You are not charged with trying to solve the heroin problem in the country, are you, in the sense of having responsibility for developing a drug that will block heroin addiction, heroin euphoria?

Dr. Edwards. No; but we do have the responsibility of working with and encouraging research in this area.

Chairman Pepper. Does your agency carry on any research of its own in this field, to try to find a drug that would be a blockage or immunizing drug?

Dr. Edwards. No. We are not doing any immediate work ourselves.

Chairman Pepper. That is what I was getting at. You are not charged with the responsibility by law of furnishing the funds to carry on independent research to try to find a drug that will be a blockage or an immunizing drug for heroin?

Dr. Edwards. We are supplying funds to the Committee on Drug Dependence.

Chairman Pepper. You are more or less a policing agency to examine drugs that are proposed to you and to see whether or not after proper inquiry is made, they are efficacious and/or safe drugs?

Dr. Edwards. That is correct. Our responsibility is to evaluate the scientific data obtained from these various programs and to evaluate the safety and efficacy of the drugs.

Chairman Pepper. And since submissions to your agency might be made by another Government agency, or almost anybody who wants to use a drug, private pharmaceuticals or NIMH, and trying to carry on an inquiry, trying to develop a particular type of drug.

Dr. Edwards. Yes, sir; that is correct.

Chairman Pepper. Does NIMH in your opinion generally have responsibility in this field as the initiating agency to try and do something about the drug problem?

Dr. Edwards. I think it has the prime responsibility in the Federal Establishment for initiating and stimulating research in this area; yes.

Chairman Pepper. Well, now, has NIMH submitted to the Food and Drug Administration any drug and asked for your evaluation of those drugs with respect to the treatment of heroin addiction?

Dr. Edwards. For the specifics I would have to ask Dr. Gardner to answer.

Dr. Gardner. They submitted applications for investigational new drug status for not only methadone, but for some other drugs, particularly those that are being studied in the Lexington Research Center, and this is only for the investigational phase. Beyond that, of course, if they are to be marketed, that would become part of the responsibility of the pharmaceutical industry.

Chairman PEPPER. Well, now, Doctor, one of the things that this committee is very interested in and very concerned about, is trying to develop a system by which everything that can be done, shall be done as quickly as it can be done to do something effective about the heroin addiction problem in this country.

You know, of course, what it is costing the country in terms of lost lives and ruined careers and crime and loss of property, et cetera.

I know your agency is desirous within the bounds of propriety and within the limitations of law to be cooperative. We heard here a little bit ago about a drug, for example, that some doctors have been using in respect to the heroin addiction that they think blocks the physical craving for heroin, and it has been used on a number of people, according to one of the doctor witnesses who appeared, and another doctor had sent some of his patients to receive treatment by this drug.

Now, we wouldn't, of course, in any sense of the word suggest or condone your giving approval when it should not properly be given, but I think we do have a right to inquire whether or not good leads that might be developed would have all possible expedition and consideration by your agency, because this is a matter of great public interest. I mean, you wouldn't put too much emphasis on the form and too little upon the substance so as to just take as a matter of casual day-to-day routine submissions by responsible people of possible antagonistic or blockage or immunizing drugs for heroin addiction; would you?

Dr. EDWARDS. No; we certainly wouldn't. We share your concern for this problem and, as I mentioned earlier, we do not want to impede progress in trying to develop a meaningful drug in this area. On the other hand, we do have a responsibility, first, to assure that dangerous drugs are not allowed on the market. Second, that the drugs are not diverted into illicit channels.

Chairman PEPPER. And if the National Institute of Mental Health, which seems to have the primary responsibility by law, told you they had some leads, and asked your cooperation and inquiring into the safety and efficacy of those potential drugs, you would cooperate with them, of course, in every way possible.

Dr. EDWARDS. Absolutely, and we are doing this right now. All we want to be sure of is that these studies and these drugs are being used by people who should be using them. The National Institute of Mental Health is really the focal point in the United States for testing.

Chairman PEPPER. Just one other question, Doctor. Now, is it your general opinion that methadone is about the best drug that is on the market so far for dealing with heroin addiction? I mean, even if it does have its defects and its faults, it has certain advantages in the treatment of heroin addiction if properly used.

Dr. EDWARDS. It certainly shows some promise, more so than anything we have currently available.

Chairman PEPPER. Well, now, if it were to be used—suppose we were to recommend to the House of Representatives, and the Congress should adopt a law and adequate funds should be provided to set up a system of treatment and rehabilitation facilities all over this country, in every community in America where there was a need for it—would you suggest that such treatment and rehabilitation programs should be conducted through clinics where there would be proper supervision and the like, rather than permit these drugs to be prescribed by individual practitioners?

Dr. Edwards. I think a drug with the potential danger—and I will use the words "potential danger"—of methadone, if it is going to be used on a widescale basis, it has got to be used through institutional-type clinical settings. I don't think they can be used through individual practitioners.

Chairman Pepper. And your regulations have been moving rather in that direction?

Dr. Edwards. Our regulations are definitely moving in that direction.

Chairman Pepper. The clinic can require the patient or the recipient of the treatment to be there in person and receive it when they think it is desirable to do this.

Dr. Edwards. That is right.

Chairman Pepper. And they can give him certain therapeutic and occupational and other assistance.

Dr. Edwards. That is correct, because there is——

Chairman Pepper. Which the doctor doesn't profess to be able to afford.

Dr. Edwards. I think your point is an extremely good one, that we need more than just methadone therapy. There is a whole range of rehabilitative services that have to go into the rehabilitation of any addict and it is more than just a single drug. You have to have other forms of therapy as well.

Chairman Pepper. Mr. Brasco?

Mr. Brasco. Yes.

Dr. Edwards, can you tell us how long you have been investigating the properties of methadone in terms of its safety?

Dr. Edwards. If I might, I would like to have Dr. Gardner answer that. He is better acquainted with the specifics.

Dr. Gardner. Actually, of course, we haven't been investigating it.

Mr. Brasco. Well, you make a determination as to whether or not it is a safe drug.

Dr. Gardner. Yes.

Mr. Brasco. Somebody should be investigating it.

Dr. Gardner. I meant we only evaluate the data submitted by the people who conduct the studies. Most studies have been in progress for only the past year and insufficient data has been submitted as yet to fully evaluate the safety and efficacy of methadone maintenance.

Mr. Brasco. Well, let me ask you this, Dr. Edwards. All of your statement is replete with the fact that there are certain judgment criteria, and I heard a moment ago that there are approximately 30,000 people in the program already. Now, what are you working toward in terms of getting to a point that you can say whether or not this is a safe drug or not a safe drug?

Dr. Gardner. Well, first of all, the 30,000 might be on the high side, but something between 20,000 and 30,000 people are probably in these programs. In terms of safety we must know about any adverse effects this drug will produce in long-term use. Will it interfere with normal functioning? How many deaths may occur from the licit or illicit use of this drug, given the amounts necessary for a maintenance program. We do need to know how much illicit distribution stems from the approved program because this, in a sense, affects the safety of this use of methadone.

We want to know what the possible death rate is, just from the use of this drug alone. We want to know how much illicit distribution there is from the programs, because if we were to substitute this type of addiction for another type of addiction, and it would be widespread, there would be widespread abuse and illicit trade with the drug.

Mr. Brasco. Would that really make a difference in terms of its safety? I appreciate that most of the drugs that we have on the market today can be diverted and are diverted into illegal channels. We haven't stopped manufacturing them. Is that one of the considerations that is bogging down the determination?

Dr. Gardner. No; it is not the only consideration. We do not have the data submitted to us to permit an adequate evaluation of safety and efficacy.

Dr. Edwards. In other words, we do not at this time have the scientific information available to us that will establish the long-term or even the short-term safety of this particular drug.

Mr. Brasco. Well, how long has it been under consideration in terms of years or months?

Dr. Edwards. Well, of course, the drug was considered sometime ago. Short-term studies were done when the drug was being considered for its analgesic and its antitussive properties, but at that time, again, no long-term studies were done. These were short-term studies.

Mr. Brasco. What does that short-term mean? A month, 2 weeks or a year?

You see, the thing that I am concerned about, and maybe I can make myself a little more explicit, it seems to me when we get some of these drugs, and I appreciate that everyone wants to be safe in making a determination with respect to a drug, but—well, take cyclamates, for instance, we found out—I don't know how long it took to investigate that—that it has a property that may cause cancer of the kidneys and I, along with other people, have been drinking all of this diet stuff with it.

Now we have got a drug and you have approximately 30,000 people using it in a program. I, myself, have recommended a number of young people in my own district into the program. They have come back to my office and people who were in trouble before with the law, marital problems, are now working, living at home in a family relationship, and I think really the important thing is when can your agency make a determination so we can either say that methadone is not safe or say it is available for general use?

Dr. Jennings. Well, sir, I think you have raised questions of both safety and efficacy.

Mr. Brasco. I am trying to find out from you how long you need.

Dr. Jennings. Yes, sir.

Mr. Brasco. You might study this thing to death. That is what I am concerned about.

Dr. Jennings. The drug has a long history for relatively short-term use. It has been studied or used sometimes in a situation that did not permit adequate study for long-term use, for several years. What we are attempting to determine is whether the drug, given in rather massive doses, day in and day out, for periods of years will produce any adverse effects that would outweight its potential usefulness.

Mr. BRASCO. I understand all of that, but what I am trying to find out, do you have any idea of how long that would take in terms of what you say are criteria that you are using in the statement?

Dr. JENNINGS. We have only just begun to collect this kind of data. Until recently these studies were completely disorganized. Many of the resources had not bothered to submit IND's because they felt that the drug was not an investigational drug. It required this regulation, hopefully, to bring this home to the people who were using it, and I think that it will take us a matter of many months before we are able to say that the drug is safe for a certain period of time, to be administered day in and day out at high dosage.

The question of efficacy is one that is going to be much more difficult to resolve. The studies to date have not yielded the kind of control data necessary to make a determination of efficacy. We have anecdotal and testimonial evidence that in some cases it has aided in the rehabilitation of well-motivated addicts, but the large population of heroin addicts in this country is not made up of well-motivated people.

Mr. BRASCO. Let me go on to something else. I don't want to take all of the time. I see that you really have no idea of how long it will take. I only suggest, very respectfully, that we do everything we can to speed up this process because from what I have seen, I think it is effective. I am not an expert and I don't pretend to be, but there are going to be some 30,000 people that are taking this stuff now in bad shape if somebody doesn't make a determination soon, and if it is something that is effective, then the other, you say, 100,000 to 200,000 drug addicts, should have a crack at it.

But let me get on to something else here, if I might. Now, assuming that you find that this drug is safe and efficacious, I would assume then, Dr. Edwards, that you would want the Attorney General to prevent or to regulate the use of it by doctors.

Dr. EDWARDS. That is correct.

Mr. BRASCO. In other words, you would——

Dr. EDWARDS. Like any other narcotic drugs.

Mr. BRASCO (continuing). You would ban it from being used by doctors.

Dr. EDWARDS. Beg pardon?

Mr. BRASCO. A total ban and dispensed only in clinics or just to be regulated by the Attorney General.

Dr. EDWARDS. Well, again, I can't give you the specifics. These specifics would have to be worked out with the Department. Generally speaking, this drug has to be used in the proper setting, and I think the proper setting is an institutional one.

Mr. BRASCO. Let me ask you this, Dr. Edwards. You have expressed concern about methadone being diverted into illegal channels, and we heard that same testimony yesterday from Mr. Ingersoll and it has also come to this committee's attention, that methadone can be made in such a way that it cannot be used intraveneously.

Now, if it is not used intraveneously, then the diversions don't present the problem that we have today, because otherwise it would only be used by addicts orally and I would assume they would be using it to taper off on their habit.

Now, if this can be made into what the experts call a gummy substance that is incapable of being injected intravenously, why don't we do it?

Dr. JENNINGS. I can answer that. We are working closely with the principal manufacturer to develop just such a formulation. That is, a large tablet which, when mixed with the limited amount of fluid which would be used for intravenous use, forms a thick, gummy substance unsuitable for administering.

Mr. BRASCO. That can be done now, as I understand it, unless I am laboring under a misapprehension.

Dr. JENNINGS. That formulation has not yet been developed to the——

Mr. BRASCO. Well, are we talking about the drug companies have to be convinced or we can't do it? What are we talking about?

Dr. JENNINGS. We are talking about the efforts of the principal manufacturer to develop such a formulation having met with some difficulties which we think are not insurmountable. We think we are very close.

Mr. BRASCO. What difficulties would they be? Is it the drug companies resisting?

Dr. JENNINGS. Technical difficulties.

Mr. BRASCO. Then it is not capable of being made into a gummy substance today?

Dr. JENNINGS. We expect we are very close to this.

Mr. BRASCO. At this point I would like to refer to our counsel who, I understand, indicated that it can be done.

Mr. PERITO. Dr. Jaffe's program.

Mr. BRASCO. He uses a gummy substance; is that correct?

Mr. PERITO. Dr. Jaffe has advised the staff that he has a method of distributing methadone, as I understand it, which is not susceptible to injection.

Dr. EDWARDS. We are not aware of that.

Dr. JENNINGS. I think he is one of the people testing the Lilly product which consists of the tablet I have described.

One of the problems with this was that, although it had some of the characteristics that were desirable, that is, when mixed with a small amount of fluid it formed a thick gummy substance, it was not completely soluble in some of the solutions that are usually used by the clinics.

Mr. BRASCO. Do you have any idea of when we might arrive at that point?

Dr. JENNINGS. I think we are within weeks of the development.

Mr. BRASCO. Of being able to at least do that.

Dr. JENNINGS. Yes, sir.

Mr. BRASCO. May I ask this last question. I see on the chart that I have here you are under HEW; is that correct?

Dr. EDWARDS. That is correct; yes.

Mr. BRASCO. Now, I see that in 1971 they have an appropriation of some $17.9 million. Can you tell us what portion of that is for your agency?

Dr. EDWARDS. No; I wouldn't know what that $17.3 million figure is. I would have to see how it was broken down.

Mr. BRASCO. Well, could you tell us what portion of this money, if any, is being used to develop new drugs?

Dr. EDWARDS. Well, of course, I can't speak concerning the development of new drugs by the National Institute of Mental Health. None of our money is going directly into the development of new drugs.

Mr. BRASCO. So you don't have a research budget, as such?

Dr. EDWARDS. We have a research budget, but not for the development of new drugs in this area.

Mr. BRASCO. What would that money be for? What would you be researching?

Dr. EDWARDS. Oh, we are doing a lot of things. We are doing a lot of toxicological research in the heavy metals. We are doing research work in the pharmaceutical field.

Mr. BRASCO. But not in the area of drugs that could be used in the problem of drug addiction.

Dr. EDWARDS. No. Our role is not in new drug development.

Mr. BRASCO. I don't want to take all of the time, and I don't, gentlemen, want it to be understood that I want to appear to be unfriendly, but I think part of the problem that we have here really is that most of the people that we have heard from have said that we don't have adequate statistics as to how many drug addicts we have. We don't have adequate statistics as to how many people are involved in what programs, and how they are making out. We are talking about minuscule amounts of moneys used for research development of new drugs in this particular area. We are talking about our inability to convince the Government of South Vietnam, where we have expended money and men, to help us in this problem.

France is a great friend of ours and I think owes us approximately $7 billion and we can't convince them they ought to do something about breaking down the laboratories that make heroin.

I think that unless we are all ready, and this is not looking for a fall guy in any partisan way because I think the only people that are falling are the American public as a result of this problem, unless we put together a concentrated effort of research and want to crush and destroy the sources of this, we are just going to be going around in circles.

And with that, I thank you, Mr. Chairman.

Chairman PEPPER. Thank you.

Mr. Wiggins?

Mr. WIGGINS. Yes, Mr. Chairman.

Dr. EDWARDS. Mr. Chairman, may I make just one comment? I certainly agree with what you have said. I think that for the first time, at least since I have been here, this coordinated effort on the part of all of the Federal agencies, particularly those that are involved in this program, is just beginning to take on a head of steam, and it came about first with the passage of our new regulations, and I feel, for the first time, a great deal more optimistic about the total Government effort than I have been in the past.

Chairman PEPPER. Mr. Wiggins.

Mr. WIGGINS. Dr. Jennings, does statutory authority exist to permit you to require the manufacture of methadone in a noninjectable form?

Dr. JENNINGS. I am not sure that I understand your question. Certainly we have the authority to approve drugs for safety and efficacy and that approval includes the formulation of the drug, that is, the physical state in which it is marketed, as well as the labeling for it, and we have requested the principal manufacturer to develop the dosage form that we were speaking about for this particular investigational use. But we haven't extended that particular requirement to the currently marketed forms of methadone for its other indications, that is, as an ordinary analgesic or antitussive.

It may very well be that its hazards or its usefulness in the maintenance program would eventually be considered so great that it would be in the interest of the public welfare to eliminate the dosage forms.

That is something that certainly could be considered, and because we do have the authority to make an estimation of the benefit-to-risk ratio, we could probably require a single nonabusable dosage form if one could be developed.

Mr. WIGGINS. Have you answered my question; yes or no?

Dr. JENNINGS. I think it is yes; but I think we would have to consult our legal people about it.

Mr. WIGGINS. Would you provide a fuller answer if, after consultation, you believe the answer to be no, and even if you believe the answer to be yes, would you communicate with the committee and clear that matter up?

Dr. JENNINGS. Yes; of course.

(The following, in reference to the above request, was received from M. J. Ryan, Director, Office of Legislative Services, FDA:)

QUESTION

Does statutory authority exist to permit FDA to require the manufacture of methadone in a noninjectable form?

ANSWER

Yes. Under the terms of the Federal Food, Drug, and Cosmetic Act, a new drug may not be marketed unless it has been approved as safe and effective by the Food and Drug Administration. If there is the possibility of safety problems (which could include problems related to drug abuse) using a particular dosage form of the drug, approval could be restricted to those dosage forms where this problem does not exist, or exists to a lesser degree.

Mr. STEIGER. Will my colleague yield?

Mr. WIGGINS. I will yield if you have a question.

Mr. STEIGER. I thank you. I wondered, assuming that we find a legal basis for this requirement, that methadone only be dispensed in a nonabusable form, what criteria would you require to arrive at that decision?

Dr. JENNINGS. In order to make such a decision we would, first of all, have to make two decisions. One, that methadone is safe and effective for the long-term maintenance treatment of heroin, and, two. that this use was so important vis-a-vis its other uses, that it would be considered overriding and we would, therefore, eliminate, or at least curtail to some extent, the other uses by having just the one dosage form.

Mr. WIGGINS. Does statutory authority exist for your agency to compel that methadone be dispensed only in an institutional setting, not by private physicians?

Dr. JENNINGS. At the present time we could invoke that requirement for the investigational use. That is, for the maintenance treatment of heroin addiction. We could not do that currently for the marketed form of methadone which is labeled for other uses.

Mr. WIGGINS. As to that question as well, would you refer that to your counsel and then advise the committee precisely as to the extent of your statutory authority to do some of the things you think might be necessary to be done.

(The following was subsequently received from M. J. Ryan, Director, Office of Legislative Services, FDA:)

QUESTION

Does statutory authority exist for your agency to compel that methadone be dispensed only in an institutional setting, not by private physicians?

ANSWER

Yes. If is is necessary to restrict distribution of a drug in order to assure its safe and effective use, the Act does provide such authority.

Mr. WIGGINS. And then, finally, as an aside, this drug has been used for maintenance purposes, at least since 1963, in massive doses and it is surprising that you are just now accumulating statistics in 1971, because it was used in 1963 with your approval. I am not blaming anybody, but I am suggesting that the timelag is sufficient for some sort of determination to be made about it.

Dr. EDWARDS. It was authorized for certain uses in 1963, not in terms of the treatment of heroin addiction, however.

Mr. WIGGINS. Well, that program started in New York with Drs. Dole and Nyswander in 1963 for maintenance purposes to relieve the effects of heroin addiction, and I understand it was done with your acquiescence. By "your" I mean the Agency's acquiescence.

Dr. JENNINGS. I am not sure of the exact date of Dr. Dole's filing an IND. I want to point out, however, that until our recently approved regulations went into effect, or until it became apparent that we were going to promulgate such regulations, most of the investigators of this drug did not consider that they were carrying out an investigation, but were, on the basis of the published reports of Drs. Dole and Nyswander, actually treating patients.

It was our contention then, as it is now, that the kind of data and evidence required by law did not exist and it was only when we were able to promulgate a definite regulation in conjunction with the Bureau of Narcotics and Dangerous Drugs that we could begin to bring these studies under control.

Our major concern was that we first of all not interrupt any legitimate investigations and, second, that these all be done in such a way that meaningful data could be derived.

We are primarily concerned at this point with deriving efficacy data that will enable us to label the drug as other drugs are labeled for a definite patient population that can be defined in that label.

Penicillin is good for pneumonia but it isn't good for every case of pneumonia. Methadone is probably good for some cases of addiction but it isn't good for every case of addiction. When we approve this drug, if we approve it, the labeling will be such that it will identify, as far as we are able, the kinds of patients for whom it is effective.

Mr. WIGGINS. I commend your efforts in that regard, and I think it is about time that you started doing that.

I will yield the balance of my time.

Chairman PEPPER. Thank you.

Mr. Mann?

Mr. MANN. Dr. Edwards you mentioned earlier that you did have a moderate capacity for independent research in the drug field through certain funding grants. Tell us a little bit more about that, please.

Dr. EDWARDS. Well, we have a very, very modest grant program. Our funds are used to contract studies in certain specific areas.

For instance, as I mentioned earlier, we are doing contract studies on a number of the heavy metals. We are doing some in-house studies on such things as saccharine. We have not allocated any specific funds for the specific development of certain new drugs.

Mr. MANN. If someone came to you and alleged that they had a breakthrough drug idea, to whom would you refer them for help?

Dr. EDWARDS. Well, we would first of all say, OK, let's see the data on which you base these claims. If the data was good, we would approve the drug or we might send them to the National Institutes of Health for additional funding. We certainly wouldn't turn them off.

Mr. MANN. Well, the testing that you require is a rather expensive drawn-out procedure.

Dr. EDWARDS. That is right.

Mr. MANN. The person who has the idea may not have that capacity. The private drug industry may not be interested or they may not reach accord.

Dr. EDWARDS Right.

Mr. MANN. So where does he go for this item that might be of great public interest? Where does he go for the development of that?

Dr. EDWARDS. I think this depends on the nature of the particular product involved. I don't think there is a single place to go. I think we might be able to develop funding. We may go to the National Institutes of Health for additional funding. There may be private funds available. I think we have a responsibility to flag any potentially good new drugs that haven't adequate funding and try to help them obtain funding.

Mr. MANN. Well, let's assume that it is a drug that would appear to have great promise in the heroin blocking area. Where would you send him?

Dr. EDWARDS. Probably the National Institute of Mental Health. They are in the research and development area. They are the lead agency in this area and that would be the logical place to send them. If it were a heart drug, we would send them to the National Heart and Lung Institute.

Mr. MANN. Do you have any information as to whether or not the National Institutes of Health have adequate funding or personnel to proceed with such a project?

Dr. Edwards. All I know, I can look at their budget, and they have a budget, but I don't know how much they have earmarked specifically for this particular purpose.

Mr. Mann. That is all, Mr. Chairman.

Chairman Pepper. Mr. Rangel?

Mr. Rangel. Yes, doctor, is it safe to say that over the 7-year period methadone has been before your agency, that you have not been able to determine its safety with any degree of accuracy?

Dr. Edwards. No. Its long-term safety has not been established.

Mr. Rangel. Now, why would you continue to give IND numbers for a drug which you cannot over this period of time determine its safety?

Dr. Edwards. Well, again, you have got to remember the way it is being used now, the kind of data and information that we need to determine safety. We are just beginning to accumulate this right now.

Mr. Rangel. You are accumulating. Does your agency have any jurisdiction to sanction a physician that wants to prescribe methadone for whatever purpose he wants to prescribe it?

Dr. Edwards. No. If the physician has a narcotics license, he can fortunately or unfortunately use it any way he wants.

Mr. Rangel. You have no control over this?

Dr. Edwards. We have no control over the individual physicians practicing medicine; no.

Mr. Rangel. But you have control as to whether or not this drug can be used by this physician.

Dr. Edwards. Can be marketed; yes.

Mr. Rangel. So, in fact, even though there has been no completion of the study as far as safety is concerned, any physician can dispense a narcotic——

Dr. Edwards. We are satisfied as to the safety of the drug, according to its labeling. In other words, as an analgesic, as an antitussive.

Mr. Rangel. But you can't control how it is actually being used on the streets.

Dr. Edwards. If the doctor wants to misuse or abuse the drug, there isn't much we can do about it.

Mr. Rangel. Now, you mentioned in your testimony the bias that exists in selecting patients who are using methadone, and I assume you are talking about the institutions. Is it safe to say that the civil rights statutes don't apply as relates to treating drug addicts?

Dr. Edwards. Again, what was that? I didn't get the exact question.

Mr. Rangel. Well, on page 4 of your statement, you indicate that it is impossible for your agency to determine with any degree of accuracy the rehabilitative value of the drug because the institutions are selecting in the main, older people, and in the main, the majority of the patients are white.

Dr. Edwards. What I said is that the several studies that have been brought to our attention, and which we reviewed in some depth, have tended to have a select group of patients in the study. They have tended to be perhaps better educated, white, and so forth.

Mr. Rangel. Well, my question was, do the civil rights statutes apply in connection with dispensing methadone to drug addicts?

Dr. Edwards. I would hope so.

Mr. Rangel. But from the studies that you received, it doesn't.

Dr. Edwards. Well, again, I couldn't make a comment on that specifically. I would hope that it did. In other words, there are reasons why patients are selected for a study. I am not being necessarily critical of the investigators per se, but it may be that for the first group, they wanted a better educated group to try this on. I don't know all of the background.

Mr. Rangel. Now, your testimony reveals 257 IND numbers, 277 programs, 185 of these programs are in institutions. How many investigators do you have to police these IND numbers?

Dr. Edwards. Well, theoretically, we have some 700 inspectors in the field for general use. At the moment, we are probably using, oh, I suspect 50 of our inspectional staff for this particular purpose.

Mr. Rangel. Now the 92 that are other, how many of those are located in New York State?

Dr. Gardner. There are approximately 60 in the New York City area and about another 20 or so throughout the rest of the State.

Mr. Rangel. How many investigators would be assigned to those that are located in New York City?

Dr. Gardner. There is a staff of at least 100 in the New York City regional office but at the moment only a small portion of those people are assigned to this particular kind of investigation.

Dr. Edwards. At the moment it is a combined effort between our headquarters staff and the particular regional staff, wherever the program might be. Again, as I mentioned earlier, it does take some specialized training to be able to properly evaluate some of these programs, some of the technical aspects of it. I suspect that we have used off and on in the last several weeks in the New York area probably 25 or 30 different people.

Mr. Rangel. Are you satisfied with the clinical work of the methadone clinics that operate on 95th and 97th Streets in the city of New York, Manhattan?

Dr. Edwards. No; we absolutely are not.

Mr. Rangel. Well, why is it that they are still allowed to, in the community's opinion, dispense without regulatory sanctions?

Dr. Edwards. We have inspected their operation. If the deficiencies that were pointed out to them very clearly are not corrected in just a matter of days, the program will be terminated.

Mr. Rangel. Now, I have contacted your office I think several months ago. Are we saying that we are now within a couple of days of reaching a conclusion?

Dr. Edwards. I think that is a fair statement; yes.

Mr. Rangel. Is it true that your Agency has authorized or given IND numbers to physicians that have been convicted of violating the Harrison Act?

Dr. Jennings. I don't believe that to be so, sir. I would hope not.

Mr. Rangel. Well, specifically, a doctor from the District of Columbia. Did he have a conviction of violating the Federal narcotic laws when he was issued his IND, after your investigation?

Dr. Jennings. I don't know that, sir. We can check that out for you. I hate to keep going back to history but only very recently, the requirement of prior approval by both the Bureau of Narcotics and Dangerous Drugs and ourselves was put into effect. It would be possible for someone to conceal from us certain facts that might have resulted in his not having been granted a number. So I can't really tell you the answer to that question. We can check it out and respond to it.

As it stands now, before anybody is approved, he will be checked out by the Bureau of Narcotics and Dangerous Drugs for just this sort of thing as well as by the Food and Drug Administration for the scientific merits of the protocol that he submits.

(The following information, subsequently received from M. J. Ryan, Director, Office of Legislative Services, FDA, was received for the record:)

QUESTION

Is it true the FDA has authorized or given IND numbers to physicians who have been convicted of violating the Harrison Act?

ANSWER

We have no knowledge of having given an IND number to a physician convicted of violating the Harrison Act. We have checked with the Bureau of Narcotics and Dangerous Drugs, Department of Justice, and they do not know of any physicians who have been convicted of violations. Investigations have been done on IND sponsors and adverse findings have subsequently come to light concerning physicians with IND's for methadone maintenance. However, we know of no Harrison Act convictions. With the new methadone regulations now in effect, the Bureau of Narcotics and Dangerous Drugs does a background check on each new applicant, which would prevent this possibility.

Mr. RANGEL. But, it is safe to say, notwithstanding the statutory sanction that your Agency possesses, that any unscrupulous doctor can feel free to dispense this drug, which you have authorized to be on the market, without fear of any sanction from your particular Agency.

Dr. JENNINGS. We have no direct authority over that; that is true.

Mr. RANGEL. Has there been any other drug that has been before the FDA that has been allowed, agreeing that you have not reached any conclusions as to its safety, to be on the market to be used this widely for a 7-year period without being certified?

Dr. EDWARDS. Probably not.

Mr. RANGEL. Are there political implications to why you will not reach a decision as to whether methadone is safe or not?

Dr. EDWARDS. There are no political reasons as far as we are concerned.

Mr. RANGEL. I am not talking about Democrat or Republican. I am talking about the American Medical Association and the pharmaceutical industry.

Dr. EDWARDS. No. I am referring only to the decisions we have made on the drug.

Mr. RANGEL. Is it true that your statistical data would indicate that this drug has been used mainly in treatment of low economic groups in this Nation?

Dr. JENNINGS. No. I don't think that is true, sir.

Dr. GARDNER. No; that is not true. Certainly it has been used in treatment of low economic groups, but by no means limited to that.

Mr. RANGEL. I don't mean restricted, but isn't it true that the overwhelming number of addicts being treated by methadone are in the low-income brackets?

Dr. GARDNER. Again, we don't have all of the figures but I would say from what we have, "No."

Mr. RANGEL. Let's talk about the cities where you have your major clinics. Are they not located to service the inner cities?

Dr. GARDNER. Many of the programs are located in the major cities, but by no means all. At least half of the programs are located outside of the cities or inner cities.

Mr. RANGEL. I am not talking numerically in terms of number of clinics; I am talking about in terms of the number of patients that are being treated by methadone. Isn't it a clear fact that the overwhelming number of the patients that are being treated by methadone fall into a very low economic bracket?

Dr. GARDNER. No; this is not a clear fact, as yet, in many programs, even those in the inner city, we see large numbers of patients from middle-income groups and from the suburbs. This is one of the things that we wanted more, better figures about, you know, why this is going on and how this can occur. But by no means in the figures that we have are the bulk of the patients from lower economic groups, at least to begin with. Of course, if they have been on heroin for a while that may occur, but by no means——

Mr. RANGEL. How far away can the American public expect the FDA to give a professional decision as to whether or not methadone is safe for use on human beings.

Dr. EDWARDS. I can't give you a specific answer on that. I think it depends on how our new regulations work, how rapidly we are able to accumulate meaningful data.

Dr. JENNINGS. I might add one thing to that, sir, in response to your question, and in partial response to one Mr. Wiggins raised earlier. The Dole and Nyswander study, which was the pioneer study, was published in the open medical literature but it is only within a matter of the past several months that at our behest, and funded by the drug company, an effort has been made to collect their data in a form that would permit us to make the kind of decision you are speaking about. I think we could say now, that by the usual measurements of safety, that methadone in these dosages would be safe for a definitive period of time, for perhaps a matter of a year or two or three.

We have no data on the extended range beyond that, and Dr. Dole, of course, insists that patients who start on methadone will persist on it for the rest of their lives.

We need to go very far to find examples of drugs that seem to be safe for even an extended period of time, but when studies were done that encompassed, say, perhaps 10 years, adverse effects that were completely unsuspected began to develop, and we are currently wrestling with just such a problem in a drug that must be administered chronically.

Chairman PEPPER. Mr. Sandman?

Mr. SANDMAN. I only have two questions. Dr. Casriel was here and testified about a drug that he called Perse. Are you familiar with that drug?

Dr. EDWARDS. Yes; we are.

Mr. SANDMAN. I came here late and if you have already discussed this, I will withdraw the question.

Well, very briefly, does it have the degree of success he claims?

Dr. GARDNER. We can't tell that at the moment. Our major concern has been with the possible toxicity of the drug and we haven't been able to get the data yet to evaluate that, and we have held up further studies until we can meet with Dr. Revici and inspect his facilities.

Mr. SANDMAN. From his claims, I would assume you are going to do that pretty quickly.

Dr. GARDNER. We have scheduled two meetings with him already which have been postponed at his request.

Mr. SANDMAN. Methadone has been used rather widely in Lexington; has it not?

Dr. EDWARDS. Yes.

Mr. SANDMAN. You have been using it there ever since 1963, as far as I know.

Dr. EDWARDS. No.

Mr. SANDMAN. You have or have not?

Dr. EDWARDS. I don't know how long they have been using it there. I would have to check and provide that information for the record.

(The following information, in response to the above question, was received by the committee from FDA:)

QUESTION

When did methadone use begin at Lexington?

ANSWER

Dr. Phillipson (Division of Narcotic Addiction and Drug Abuse, National Institute of Mental Health) reports that methadone for detoxification of addicts has been used since the late 1940's. He adds that they have never used methadone for maintenance at Lexington until this year when they started it under the NIMH methadone IND on the female ward.

Mr. SANDMAN. Do you have any statistics at all to provide the value insofar as your experience at Lexington is concerned?

Dr. JENNINGS. I haven't.

Mr. SANDMAN. I am interested only in those cases where it had a real bad effect, where it did damage. During that period of time, how many cases do you know of at Lexington, for example, where it had a real bad effect by using it upon the addict?

Dr. GARDNER. To our knowledge, its use there has been largely short-term use and there hasn't been much——

Mr. SANDMAN. Do you have any deaths, for example, that you can say were caused by the use of methadone?

Dr. GARDNER. No. Not at Lexington that we know of.

Mr. SANDMAN. Have you had any cases of real bad effects, permanent injury?

Dr. GARDNER. No.

Dr. EDWARDS. You mean at Lexington?

Mr. SANDMAN. Yes.

Dr. GARDNER. No; not that we know of.

Mr. SANDMAN. Then it would appear from what you have said that because we don't have anything better to use at the present time, this particular drug probably is the best we can use now; is that your position?

Dr. EDWARDS. I suspect it at least has as much potential as any drug we currently have; yes. But, again; I think the important point for everyone to bear in mind, we are not talking just about safety. We are trying to determine whether or not this drug is efficacious. Nobody has really yet proven that this form of addiction for another form of addiction is going to solve our problem.

Mr. SANDMAN. I have no further questions.

Chairman PEPPER. Mr. Keating?

Mr. KEATING. Yes. Just a couple of brief questions. I am concerned about the use of methadone by private physicians. Is it your thought to limit the application or the dispensing of methadone to only clinical areas and under the clinical environment?

Dr. EDWARDS. This will have to be worked out with the Department of Justice. As of the moment, any doctor that obtains a narcotics license can, in fact, use these drugs.

Mr. KEATING. I understand.

Dr. EDWARDS. I think some changes will have to be made.

Mr. KEATING. I understand that. Do you intend to seek those changes that are necessary?

Dr. EDWARDS. It again would have to come about through the Department of Justice but it would certainly be my recommendation that certain changes be made.

Mr. KEATING. Recommendations would have to come from you before they would take any action.

Dr. EDWARDS. Yes.

Mr. KEATING. But you intend to make those recommendations?

Dr. EDWARDS. Yes; in a general way. This has to be done, however, with caution, because we certainly do not want to obstruct the conscientious good practicing physician from being able to use methadone in a way other than just for methadone maintenance. How you cut one off and turn one on is a difficult problem.

Mr. KEATING. I understand that, but do your statistics indicate that the greater source of illicit use of methadone is from the clinical atmosphere, from the private physician or from the manufacturer?

Dr. EDWARDS. I think currently it is from the small individual practitioner that is perhaps carrying on a large program in which he doesn't have adequate facilities or adequate manpower to keep track of what is going on in the study.

Mr. KEATING. Or to make proper reports.

Dr. EDWARDS. Right. Exactly. Recordkeeping.

Mr. KEATING. It seems to me that the use of methadone would require very strict supervision and investigation to be sure that we are not creating a nation of addicts by the use of a maintenance program.

Dr. EDWARDS. This is exactly right. This is why we have put together these regulations. There are going to have to be additional regulations as we move along. Particularly if the drug is accepted as safe and efficacious in the treatment of this particular condition.

Mr. KEATING. Now, we are talking about maintenance and the use of methadone. Does it fall within your province to suggest that methadone be used primarily for withdrawal from the habit, or do you take a position on that, whether it should be used for maintenance, maybe the rest of their lives, or whether it should be used only for withdrawal.

Dr. Edwards. Yes. Part of what we approve the drug on are the indications for the use of the drug and this all goes, of course, in the labeling for the use of the drug. In other words, what are the specific indications.

Mr. Keating. I guess what concerns me is that we constantly center these discussions that we have on maintenance programs and we don't seem to be talking enough about withdrawal, the withdrawal and rehabilitation process.

I am not accusing you of this by any matter of means, because yours is a limited area, I think, as far as this is concerned, but constantly through these hearings I am concerned that one doctor who is handling the dispensing of methadone says we don't tread into that area for fear that we will discourage them from participating in the program at all, and I am a little bit concerned that we may just be moving in one direction which may be injurious to the national health of our young people.

Dr. Edwards. Again, I would say your point is extremely well taken. I share your concern, and this again is exactly the point we are trying to make. There are an awful lot of answers we don't have on this drug, and until we have them, I think it is the responsibility of the FDA, the National Institute of Mental Health, the Bureau of Narcotics and Dangerous drugs, to proceed cautiously in allowing the use of this drug.

Mr. Keating. Well, I know that it is not easy to arrive at a perfect solution and I am sure that no amount of investigation will give you a perfect solution, but I believe that we should be cautious and should arrive at a goal that protects the country as a whole.

That is all, Mr. Chairman.

Chairman Pepper. Doctor, just two questions. If methadone is found not to be safe, what happens to the 30,000 methadone addicts who are now being maintained on it?

Dr. Jennings. I think there has been considerable misunderstanding of what our goals are here. I think if it hasn't already been done we might submit for the record a copy of our regulations governing the investigation of methadone for maintenance treatment of heroin addiction.

These set forth, among other things, a protocol or a plan for the investigation of methadone which requires that prior to entry into the program, the subject or patient must undergo certain examinations, physical examination and certain laboratory studies, which must be repeated at intervals. It is, I think, already obvious that we are not concerned with relatively short-term use of the drug but, rather with extended use such as is envisioned by Dr. Dole and those who follow his way of thinking. So, if it became apparent to us that some of these routine examinations and laboratory studies were showing the development of abnormalities, these would have to be weighed against whatever evidence we had for the efficacy of the drug.

This is always the case with a potent drug offered for serious indications, and if the benefits to be derived outweigh the risks, then with proper precautions the use could continue.

On the other hand, if serious side effects or other adverse developments showed up during the course of the investigation, it might be that we would want to terminate the long-term use of the drug.

Chairman PEPPER. Let me see if I can summarize what you are saying. You are saying that you have not yet evaluated what the effect of the use of methadone over a long period of time is. You are saying also, as I understand it, that there is no immediate prospect that you are going to abruptly cut off methadone from these programs unless the data that comes in to you from these people who are using the methadone treatment show disturbing effects with respect to individuals or groups. Is that about it?

Dr. JENNINGS. That is correct, sir.

Chairman PEPPER. Do all the 277 programs that you say you are now operating conform to this protocol?

Dr. EDWARDS. No. We are in the process right now of going through and inspecting all of the programs. We started out with the 50 or so that we suspected probably needed inspection most. There is no question that there are some deficiencies in a number of these programs and we are trying to come to grips with them.

Chairman PEPPER. That was going to be my next question. What are the deficiencies in the clinics which may be closed?

Dr. EDWARDS. Dr. Gardner has been involved and he can tell you specifically what the problems are.

Dr. GARDNER. Largely, the lack of adequate supervision of those who are under treatment, lack of adequate screening procedures to determine whether, in fact, somebody is addicted when they come into the program, the lack of adequate controls of the drug as it is used, so that it can be obtained for illicit distribution on the streets.

Chairman PEPPER. Do I understand your position to be that you do not recommend or approve the general distribution of methadone to every heroin addict, but that there should be an examination of the individual before he is given methadone; is that your position?

Dr. GARDNER. We think it may be useful for many people We need to find out more about it, because we don't know who would do best on methadone and who would do best with other kinds of programs.

Chairman PEPPER. But you do not recommend that it be given indiscriminately to every heroin addict?

Dr. EDWARDS. Absolutely not. And again, Dr. Gardner pointed out, first, we had to be assured that they are heroin addicts. We don't want to make a methadone addict out of someone who isn't a heroin addict.

Dr. GARDNER. I think this is extremely important. If the physician is going to take on the responsibility of giving a potent drug like this, then he also has to take on the responsibility of adequately clinically following that particular patient and keeping records on him and this is all we are asking of the medical profession really.

Chairman PEPPER. Doctor, we could ask you questions all day but we have kept you and Dr. Gardner and Dr. Jennings long enough.

Dr. EDWARDS. Thank you, Mr. Chairman.

(The following material was received for the record:)

[Exhibit No. 17(a)]

STATEMENT OF JOHN JENNINGS, M.D., ASSOCIATE COMMISSIONER FOR MEDICAL AFFAIRS, FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, I am Dr. John Jennings, Associate Commissioner for Medical Affairs. The committee has been supplied with a copy of my education and professional background. Commissioner Edwards has asked me to extend his regrets that a previous commitment prevents his being here to discuss with you current research in the treatment of narcotic addiction.

We are all aware of the extent of the drug abuse problem and the increasing public concern about heroin addiction, in particular. A variety of therapeutic approaches, many with some partial success, have been utilized over the past several years—ranging from chronic hospitalization through residential programs such as Synanon, to outpatient psychotherapeutic efforts. The time, manpower, and money required in all of these approaches have resulted in only limited success, making a successful chemical therapeutic agent an attractive alternative.

This has resulted in a search for a medication that would block the euphoric effect of herion for addicts, prevent withdrawal symptoms, be effective orally, long acting, free from toxic effects, and compatible with normal performance and reasonable behavior. The addict would have to be freed of his craving or hunger for heroin.

Methadone is currently under study for the maintenance treatment of narcotic addiction. It has been an effective analgesic since it was synthesized at the end of World War II. Although for more than a decade it has been known that low oral doses of methadone would allay withdrawal symptoms, not until 1963 was it first observed that large oral doses could block the euphoric effects of even high doses of other opiates or synthetic narcotics. Thus, the current widespread interest in methadone for the maintenance treatment of heroin addicts.

Methadone is a marketed drug that has been approved through the new drug procedures for three specific uses: As an analgesic, an antitussive, and for treatment of withdrawal symptoms in heroin addiction. The last refers to the short-term treatment of the acute symptoms resulting from the withdrawal of heroin from those who have become physiologically dependent.

Maintenance treatment of heroin addiction with methadone is investigational because substantial evidence of its safety and effectiveness for this use is not yet available. Although there are studies which suggest that methadone maintenance may be effective for some heroin addicts over a period of at least months, and perhaps a few years, we are only now beginning to obtain the kind of information which may eventually permit us to define the place of this drug in the treatment of heroin addiction.

Because it was available on prescription, the use of methadone for maintenance therapy became quite widespread following the early reports of success by Dole and Nyswander.

In order to collect the type of scientific data needed to support approval of a new use of a drug, it was necessary that the maintenance programs follow protocols, including recordkeeping, that could yield such data. Investigational studies of methadone present problems not encountered in studies with other types of drugs because it is an addicting narcotic with a proven capacity for abuse.

Therefore, to protect the community from the hazards of diversion and abuse, and to assure the development of valid data, guidelines for methadone maintenance studies were developed through the cooperation of the National Institute of Mental Health, the Bureau of Narcotics and Dangerous Drugs, and the Food and Drug Administration. These guidelines were published in the Federal Register on April 2, 1971. Prior approval of both the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs, Department of Justice, is required before such studies may be initiated.

Heroin addicts do not constitute a homogeneous population and proper treatment requires that we have some knowledge about which addicts may benefit from this treatment approach in contrast to other therapy.

Some investigators have reported that 70 to 80 percent of treated addicts are rehabilitated as judged by reduction in criminal activity, improvement in employment status, or schooling. Most of these reports, however, have not given adequate consideration to the bias produced by patient selection. Some idea of the difficulty of interpreting such studies can be gained from a most recent evaluation of one of the best known programs. Although the program had a very broad criteria for admission, more applicants were not admitted to the study than were admitted.

In general, those patients admitted to the study and remaining in treatment, when compared to the overall heroin addict population, tended to be older, more often white, and in better health. This group, which had an improved employment status and reduced criminality, was not representative of the total heroin addict population. Therefore, this study, as well as others reported to date, cannot be used to generalize the results to the entire addict population.

Whether those not accepted for treatment would have fared as well as those accepted is unanswered. Reports have not provided the kind of data that enables better patient selection. Also, data are needed to distinguish the role played by the drug itself from the role played by the psychological, social, and occupational rehabilitative efforts in such programs; a marked proliferation of programs may produce many in which only the drug is used and no rehabilitation is provided.

Methadone maintenance treatment may be a valuable therapy in reducing heroin addiction, but we believe it is wise to proceed cautiously in moving toward its general prescription use for this purpose. We need better evidence to determine the safety of this treatment. One of the hazards of methadone treatment is that young drug users who are not physiologically dependent on heroin might become addicted to methadone as a result of treatment. We do not wish to have a potentially valuable therapy discredited because of its misuse by some practitioners while its efficacy is being evaluated.

We now have 257 investigational new drug exemption (IND) numbers assigned to sponsors representing 277 methadone treatment programs. We have requested 6-month status reports from these programs instead of the customary annual reports, in order to obtain adequate data as soon as possible.

We expect our recently published regulations to serve as a valuable tool in insuring compliance with existing requirements. In this regard, we have recently undertaken a program for the inspection of all methadone maintenance studies. By mid-July, we will have completed inspection of an initial 40 to 50 programs throughout the country, selected on the basis of various criteria.

In addition to achieving correction of any deficiencies, we hope to stimulate improved practices and better data collecting procedures. In these inspections, whenever possible, medical officers from our Bureau of Drugs will accompany district field inspectors. By the end of the year all programs will have been inspected. All of this will be done in close cooperation with the Bureau of Narcotics and Dangerous Drugs, which in addition has its own program for surveillance of the methadone studies.

When necessary, a sponsor will be given a time limit to correct deficiencies or face loss of his investigational status. However, before a program is terminated, we will contact local health departments, medical societies, and other approved methadone maintenance programs in an effort to insure that continuing treatment for the addicts is available.

In addition to review by our own personnel, we have appointed a committee of outside experts to assist in evaluating data as it accumulates, as well as other aspects of the ongoing programs. The committee will also be called on to assist in reviewing any new drug applications for methadone maintenance.

The concept of narcotic blockade has stimulated a search for other drugs, drugs with no addicting potential, with greater safety and of longer duration than methadone. Acetylmethadol promises some hope in that its duration of action is 72 hours in contrast to the 24 hours in which methadone remains effective. Thus, an addict could take his medication, even under supervision, on a twice weekly basis. However, the possible toxicity of acetylmethadol needs further study.

Cyclazocine is another narcotic antagonist that has been studied for the treatment of heroin addiction. Its use has been limited, however, because it has some narcotic actions of its own, can produce respiratory depression, and may be addicting.

Naloxone, recently approved for marketing as a narcotic antagonist, has some similarity to cyclazocine but lacks its narcotic actions, and in particular, does no produce respiratory depression. Naloxone has no reported addictive potential bu its short duration of action, 4 to 6 hours, limits its usefulness. It has also, like cyclazocine, been tested on a pilot study basis for the treatment of heroin addiction. It is hoped that similar agents having the properties of naloxone but a longer duration of action can be synthesized.

To reduce the availability of addictive drugs, a variety of agents are being synthesized and tested to obtain a potent analgesic with no abuse potential. Four such analgesic agents are currently under investigation. In addition, the search continues for a safe and effective blocking agent in the treatment of heroin and other forms of addiction. Only a limited number of drugs have reached the stage of animal testing and a very few have become available for clinical tests in humans.

The FDA is eager to expedite the investigation and ultimate marketing of any safe, effective agent in this vital area of pharmacology.

[Exhibit No. 17(b)]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
PUBLIC HEALTH SERVICE, FOOD AND DRUG ADMINISTRATION,
May 14, 1971.

TO: State health officers and State and local drug program officials.
FROM: Glenn W. Kilpatrick, director, State services staff, ACFC.
Subject: Investigation of methadone maintenance programs.

Although methadone has shown promise as a pharmacological treatment for drug addicts, it is still subject to the investigational new drug requirements of Federal Food, Drug, and Cosmetic Act. It may be dispensed legally for this purpose only through qualified investigators for bona fide investigational use until adequate evidence for its long-term safety and effectiveness in this treatment is established. It is also a controlled narcotic subject to the provisions of the Comprehensive Drug Abuse Prevention and Control Act of 1970 and has been shown to have significant potential for abuse. Accordingly, prior approval for methadone maintenance programs must be obtained from the Bureau of Narcotics and Dangerous Drugs, U.S. Department of Justice, as well as the Food and Drug Administration.

The Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs jointly published regulations (copy enclosed) for the investigational use of methadone as "Conditions for Investigational Use of Methadone for Maintenance Programs for Narcotic Addicts" (Federal Register, April 2, 1971). One of the requirements of these regulations is that sponsors of investigational exemptions for the use of methadone must amend their submissions by June 1, 1971, to bring them into accord with the standard protocol, or to justify any differences from the standard protocol.

The Food and Drug Administration is investigating a number of sponsors and investigators to determine if their practices conform to legal requirements. We have reason to believe that these investigations will result in FDA's requiring some sponsors and investigators to either amend their procedures or have their investigational exemptions terminated, to prevent later flagrant abuse and to avoid having the entire methadone maintenance program discredited.

In the event that there should be terminations of any investigational methadone maintenance programs or any other action that would result in any significant number of addicts being left without treatment, FDA and the Bureau of Narcotics and Dangerous Drugs will take immediate steps to notify appropriate State and local officials in time for them to take steps to alleviate any problems that might otherwise arise from the curtailment of the treatment.

GLENN W. KILPATRICK,
Director, State Services Staff,
Office of Assistant Commissioner for Field Coordination.

[Reprinted from Federal Register of April 2, 1971; 36 F.R. 6075]

TITLE 21—FOOD AND DRUGS, CHAPTER I—FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, SUBCHAPTER C—DRUGS

PART 130—NEW DRUGS

Conditions for Investigational Use of Methadone for Maintenance Programs for Narcotic Addicts

A notice was published in the Federal Register of June 11, 1970 (35 F.R. 9014), proposing establishment (21 CFR 130.44) of acceptable guidelines for programs for the investigation of methadone in the maintenance treatment of narcotic addicts. The guidelines of the Bureau of Narcotics and Dangerous Drugs, Department of Justice, were also proposed June 11, 1970 (35 F.R. 9015).

In response, a substantial number of comments were received from the medical community through the American Medical Association, Student American

Medical Association, American Psychiatric Association, National Academy of Sciences-National Research Council, known authorities in the treatment of drug addiction, and from individuals and municipalities currently operating methadone maintenance programs.

The majority of the comments are in the form of objections to provisions of the protocol and the regulation, as follows:

1. The criteria in the protocol for the exclusion of subjects from the studies: Pregnancy, psychosis, serious physical diseases, and persons less than 18 years of age.
2. The requirement in the protocol that no more than a 3-day supply be given to a subject at one time.
3. The necessity for making records available to the Food and Drug Administration and to the Bureau of Narcotics and Dangerous Drugs and the lack of a guarantee of confidentiality of patient records.
4. The requirement that one of the objectives of the studies be a return to the drug-free state.
5. The requirement that the dosage level be limited to 160 milligrams per day.
6. The necessity of obtaining prior approval from the Bureau of Nacrotics and Dangerous Drugs.
7. The requirements for weekly urine analysis and other laboratory tests and examinations.
8. The classification of the use of methadone in the maintenance treatment of narcotic addicts as an investigational use.
9. The regulation being overly restrictive and not in the best interest of the public.

The Commissioner of Food and Drugs, having considered the comments and having met with representatives of interested groups, associations, and individuals for further discussion, finds that:

1. The majority of the comments are a result of interested persons interpreting the proposal as restricting investigators to the suggested protocol. This is a misinterpretation since the protocol is intended only as a guide to assist the profession, municipalites, organizations, and other groups who are interested in sponsoring programs for the investigation of methadone in the maintenance treatment of narcotic addicts. It is not intended that every methadone program be confined to the limits of this protocol. Modification of the protocol and completely different protocols will be accepted, provided they can be justified by the sponsor. Modifications and completely different protocols consistent with public welfare and safety will be approved.

2. Since the suggested protocol is intended as an aid to those who wish to sponsor programs for the investigation of methadone in the maintenance treatment of narcotic addicts, it is recognized that it would be to the benefit of the Food and Drug Administration, the Bureau of Narcotics and Dangerous Drugs, and the sponsors of the investigations to have a suggested protocol that would be acceptable to the majority of sponsors while satisfying the requirements of the two aforementioned agencies. Accordingly, the following revisions have been made in the regulation as adopted below:

a. The provision of the protocol "Criteria for exclusion from the program" has been changed to "Patients requiring special consideration." Pregnancy, psychosis, serious physical disease, and being less than 18 years of age are not reasons for automatic elimination from a program but are conditions that merit special considerations which are detailed.

b. A provison has been added to the protocol to permit the investigator to exceed the dosage of 160 milligrams per day when the investigator finds it essential to do so and describes the considerations leading to such dosage levels in his protocol.

c. The requirement for laboratory examinations at 6-month intervals has been changed to 1-year intervals.

d. The objectives of the study have been clarified.

3. The remaining comments concerning the protocol and not mentioned above deal primarily with problems that can be met by submission of a modified protocol to be judged on individual merit.

4. Regarding the objection that the recordkeeping requirements and the necessity for making records available to the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs could violate the confidential relationship between the patient and the physician: The Federal Food, Drug, and Cosmetic Act provides for promulgating regulations that require the sponsor of the drug investigations to maintain adequate records and that these records be made

available to authorized personnel of the Food and Drug Administration. These records must be adequate in the event that followup on adverse reaction information requires identification of the patient. The Bureau of Narcotics and Dangerous Drugs is authorized to have access to these records under the Harrison Narcotic Act.

5. Methadone used in the maintenance treatment of narcotic addicts is an investigational use drug because, despite recent research gains, there remains inadequate evidence of long-term safety and of long-term effectiveness for this use to permit general marketability of methadone for maintenance treatment under the Federal Food, Drug, and Cosmetic Act standards for new drugs.

6. It is necessary that prior approval for methadone maintenance programs be obtained from the Bureau of Narcotics and Dangerous Drugs as well as the Food and Drug Administration because of this drug's potential for abuse. The Bureau of Narcotics and Dangerous Drugs' approval will be based on the existence of adequate control procedures to prevent diversion of the drug into illicit channels. Since the applications will be submitted only to the Food and Drug Administration and reviewed simultaneously by the two agencies, the inconvenience to the sponsor and the delay of approval will be minimal.

Therefore, pursuant to provisions of the Federal Food, Drug, and Cosmetic Act (secs. 505, 701(a), 52 Stat. 1052–53, as amended, 1055; 21 U.S.C. 355, 371(a)) and under authority delegated to the Commissioner (21 CFR 2.120), the following new section is added to part 130:

§ 130.44 Conditions for investigational use of methadone for maintenance programs for narcotic addicts.

(a) There is widespread interest in the use of methadone for the maintenance treatment of narcotic addicts. Though methadone is a marketed drug approved through the new-drug procedures for specific indications, its use in the maintenance treatment of narcotic addicts is an investigational use for which substantial evidence of long-term safety and effectiveness is not yet available under the Federal Food, Drug, and Cosmetic Act standards for the general marketability of new drugs. In addition, methadone is a controlled narcotic subject to the provisions of the Harrison Narcotic Act and has been shown to have significant potential for abuse. In order to assure that the public interest is adequately protected, and in view of the uniqueness of this method of treatment, it is necessary that a methadone maintenance program be closely monitored to prevent diversion of the drug into illicit channels and to assure the development of scientifically useful data. Accordingly, the Food and Drug Administration and the Bureau of Narcotic and Dangerous Drugs conclude that prior to the use of methadone in the maintenance treatment of narcotic addicts, advance approval of both agencies is required. The approval will be based on a review of a Notice of Claimed Investigational Exemption for a New Drug submitted to the Food and Drug Administration and reviewed concurrently by the Food and Drug Administration for scientific merit and by the Bureau of Narcotics and Dangerous Drugs for drug control requirements.

(b) No person may sell, deliver, or otherwise dispose of methadone for use in the maintenance treatment of narcotic addicts until a study providing for such use has had the advance approval of the Commissioner of Food and Drugs on the basis of a Notice of Claimed Investigational Exemption for a New Drug justifying such studies.

(c) An abbreviated Notice of Claimed Investigational Exemption for a New Drug shall be submitted in four copies to the U.S. Food and Drug Administration, 5600 Fishers Lane, Rockville, Md. 20852. Forms entitled "Notice of Claimed Investigational Exemption for Methadone for Use in the Maintenance Treatment of Narcotic Addicts," suitable for such a submission may be obtained from the above address. The submission should be signed by the person in charge of the maintenance program who will be regarded as the responsible party and sponsor for the exemption. (If the sponsor is a manufacturer or distributor of the drug, the regulations as outlined in § 130.3 should be followed, except where the guidelines set forth below in this section are appropriate.) The notice shall contain the following:

(1) Name of sponsor, address, and date and the name of the investigational drug, which is methadone.

(2) A description of the form in which the drug is purchased (for example, bulk powder or tablet or other oral dosage form), the name and address of the manufacturer or supplier, and a statement that the drug meets the requirements

of the United States Pharmacopeia or the National Formulary if recognized therein. If it is in an oral form designed to minimize its potential for abuse, and is not recognized in the U.S.P. or N.F., assurance that the drug meets adequate specifications for its intended use should be provided. This information may be obtained from the manufacturer. If bulk powder is used, a statement detailing how it is to be formulated, the name and qualifications of the person formulating the dosage form, and the address of where the formulating will take place if it is to take place at any location other than the principal address of the sponsor.

(3) The name, address, and a summary of the scientific training and experience of each investigator, and all other professional personnel having major responsibility in the research and rehabilitative effort, and individuals charged with monitoring the progress of the investigation and evaluating the safety and effectiveness of the drug if the monitor is other than a physician-sponsor. An investigator, other than a physicain-sponsor (and investigators immediately responsible to a physician-sponsor and named in his submission) who has signed a form FD–1571 or the form entitled "Notice of Claimed Investigational Exemption for Methadone for Us e in Maintenance Treatment of Narcotic Addicts," is required to sign a form FD–1573, obtainable from the Food and Drug Administration.

(4) A description of the facilities available to the sponsor to perform the required tests including the name of any hospital, institution, or clinical laboratory facility to be employed in connection with the investigations.

(5) A statement regarding the number of subjects to be included in the program.

(6) A statement of the protocol. The following is an acceptable protocol; however, it is not to be construed that this protocol must be adhered to in order to obtain clearance by the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs. This protocol is intended primarily as a guide for investigators who wish guidance in what said agencies consider acceptible. Invesgators who wish to do so may submit modifications of this protocol or other protocols; these will be judged on their merits.

PROTOCOL

A. *Objectives*. 1. To evaluate the safety of long term methadone administration at varying dosage.

2. To evaluate the efficacy of oral methadone per se in decreasing the craving for other narcotic drugs and in minimizing their euphoriant effect.

3. To evaluate the efficacy of methadone as a pharmacological moiety in facilitating social rehabilitation of narcotic addicts.

4. To determine which addicts are capable of returning to an enduring drug-free state.

B. *Admission criteria*. 1. Documented history of physiological dependence on one or more opiate drugs, the duration of which is to be stated.

2. Confirmed history of one or more failures of treatment for their physiological dependence on opiates.

3. Evidence of current physiological dependence on opiates.

An exception to the third criterion (current physiological dependence on opiates) is allowable in exceptional circumstances for certain subjects for whom methadone maintenance may be initiated a short time prior to or upon release from an institution. This procedure should be justified on the basis of a history of previous relapses. In these circumstances, appropriate descriptions of the facilities, procedures, and qualifications of the personnel of the institution are to be included in the application filed by the sponsor.

Subjects who wish to do so may be transferred from one approved program to another.

C. *Patients requiring special consideration*—1. *Pregnant patients*. Safe use of methadone in pregnancy has not been established. There is limited documented clinical experience with pregnant patients treated with methadone, and animal reproduction studies have not been done. It is therefore preferable that pregnant patients be hospitalized and withdrawn from narcotics. If such a course is not feasible, pregnant patients may be included provided the patient is informed of the possible hazard. To minimize the risk of physiological dependence of the new born, or other complications, pregnant women should be maintained on minimal dosage. The investigator should promptly report to the Food and Drug Administration the condition of each infant born to a mother in a methadone maintenance program.

2. *Patients with serious physical illness*. Patients with serious concomitant physical illness are to be included in methadone maintenance program only when

comprehensive medical care is available. Such patients require careful observation for any adverse effects of methadone and interactions with other medications. The investigator should promptly report adverse effects and evidence of interactions to the Food and Drug Administration.

3. *Psychotic patients.* Psychotic patients may be included in methadone maintenance programs when adequate psychiatric consultation and care is available. Administration of concomitant psychotropic agents requires careful observation for possible drug interaction. Such occurrences should be promptly reported.

Investigators who intend to include in their programs patients in categories 1, 2, and/or 3 above should so state in their protocols and should give assurance of appropriate precautions.

4. *Patients less than 18 years of age.* It is imperative that adolescents be afforded the benefit of other treatment modalities whenever possible and that those with minimal histories of physiological dependence be excluded from methadone maintenance programs. Investigators who wish to include adolescents in the program are therefore required to submit special protocols for this purpose. These protocols should state in detail the number of such patients to be treated, the alternative treatment methods available, the criteria for selection, the screening procedures, and the ancillary procedures to be employed.

D. *Admission evaluation.* 1. Recorded history to include age, sex, history of arrests and convictions, educational level, employment history, and past and present history of drug abuse of all types.

2. Medical history of significant illnesses.

3. History of prior psychiatric evaluation and/or treatment.

4. Assessment of the degree of physical dependence on and psychic craving for narcotics and other drugs, and evaluation of the attitudes toward and motivations for participation in the program.

5. Formal psychiatric examination in subjects with a prior history of psychiatric treatment and in those in whom there is a question of psychosis and/or competence to give informed consent.

6. Physical examination.

7. Chest X-ray.

8. Laboratory examinations to include complete blood count. routine urinalysis, liver function studies (including SGOT, alkaline phosphatase, and total protein and albumin globulin ratio), blood urea nitrogen, and serologic test for syphilis.

E. *Procedure.*—1. *Dosage and administration.* The methadone is to be administered in an oral form so formulated as to minimize misuse by parenteral injection. The initial dosage is to be low; for example, 20 milligrams per day. Subsequently, the dosage is to be adjusted individually, as tolerated and as required, up to 160 milligrams per day. In exceptional cases, investigators may find it essential to exceed this dosage to obtain the intended effect. If such cases are encountered, the initial protocol or an amended protocol should include the maximum dosage to be administered, the number of patients for whom such dosage is required, and a description of the considerations leading to such dosage levels. The methadone is to be administered under the close supervision of the investigator or responsible persons designated by him. Initially, the subject is to receive the medication under observation each day. After demonstrating adherence to the program, the subject may be permitted twice weekly observed medication intake with no more than a 3-day supply rountinely allowed in his possession. Additional medication may be provided in exceptional circumstances, such as illness, family crisis, or necessary travel, where hardship would result from requiring the customary observed medication intake for the specific period in question.

2. *Urinalysis.* Urine collection is to be supervised; urine specimens are to be analyzed for methadone, morphine, quinine, cocaine, barbiturates, and amphetamines; urine specimens are to be pooled or selected randomly for analysis at intervals not exceeding 1 week.

3. *Rehabilitative measures.* Rehabilitative measures as indicated may include individual and/or group psychotherapy, counseling, vocational guidance, and job and educational placement.

4. *Abnormalities.* There shall be adequate investigation and appropriate management (including necessary referral and consultation) of any abnormalities detected on the basis of history, physical examination, or laboratory examination at the time of admission to the program or subsequently, including evaluation and treatment of intercurrent physical illness with observation for complications which might result from methadone.

5. *Repeated examinations.* Physical examination, chest X-ray, and laboratory examinations conducted at the time of admission are to be repeated annually.

6. *Discontinuation and followup.* Consideration is to be given to discontinuing the drug for participants who have maintained satisfactory adjustment over an extended period of time. In such cases, followup evaluation is to be obtained periodically.

7. *Records.* Adequate records are to be kept for each participant on each aspect of the treatment program, including adverse reactions and the treatment thereof.

F. *Other special procedures.* Within the limitations of personnel, facilities, and funding available and in the interest of increasing knowledge of the safety and efficacy of the drug itself, the following procedures are suggested as worthwhile, to be carried out at baseline and periodically in randomly selected subjects: EKG, EEG, measures of respiratory, cardiovascular, and renal function, psychological test battery, and simulated driving performance.

G. *Voluntary and involuntary terminations.* Subjects who have demonstrated continued frequent abuse of narcotics or other drugs, alcoholism, criminal activity, or persistent failure to adhere to the requirements of the program are ordinarily to be terminated and their records should reflect that they are treatment failures. If they are continued indefinitely in the program, the reasons for so doing should be stated in the protocol.

H. *Results.* 1. Evaluation of the safety of the drug administered over prolonged periods of time is to be based on results of physical examination, laboratory examinations, adverse reactions, and results of special procedures when these have been carried out.

2. Evaluation of effectiveness or rehabilitation is to be based on such criteria as:

a. Arrest records.

b. Extent of alcohol abuse.

c. Extent of drug abuse.

d. Occupational adjustment verified by employers or records of earnings.

e. Social adjustment verified whenever possible by family members or other reliable persons.

f. Withdrawal from methadone and achievement of an enduring drug-free status.

3. Evaluations are to be recorded at predetermined intervals; for example, monthly for the first 3 months, at 6 months, and at 6-month intervals thereafter.

I. *Evaluation group.* Whenever possible, a locally oriented independent evaluation committee of professionally trained and qualified persons not directly involved in the project nor organized by the sponsor will inspect facilities, interview personnel and selected patients, and review individuals' records and the periodic analysis of the data.

(d) The sponsor shall assure that adequate and accurate records are kept of all observations and other data pertinent to the investigation on each individual treated. The sponsor shall make the records available for inspection by authorized agents of the Food and Drug Administration. The Bureau of Narcotics and Dangerous Drugs is also authorized to inspect these records under the Harrison Narcotic Act.

(e) The sponsor is required to maintain adequate records showing the dates, quantity, and batch or code marks of the drug used. These records must be retained for the duration of the investigation.

(f) The sponsor shall monitor the progress of the investigations and evaluate the evidence relating to the safety and effectiveness of the drug. Accurate progress reports of the investigation and significant findings shall be submitted to the Food and Drug Administration at intervals not exceeding periods of 1 year. All reports of the investigation shall be retained for the duration of the investigation.

(g) The sponsor shall promptly notify the Food and Drug Administration of any findings associated with the use of the drug that may suggest significant hazards, contraindications, side effects, and precautions pertinent to the safety of the drug.

(h) The physician-sponsor or individual investigators in admitting addicts to the investigational treatment program are required to give to the addict an accurate description of the limitations as well as the possible benefits which the addict may derive from the program.

(i) The physician-sponsor or each individual investigator of this program shall certify that the drug will be used and administered only to subjects under his personal supervision or under the supervision of personnel directly responsible to him; a statement to this effect shall be included in the notice. The signing of the form "Notice of Claimed Investigational Exemption for Methadone for Use in the Maintenance Treatment of Narcotics Addicts" by a physician-sponsor or the form FD–1573 by an investigator will satisfy this requirement.

(j) The physician-sponsor or each individual investigator shall certify that all participants will be informed that drugs are being used for investigational purposes, and will obtain the informed consent of the subjects and shall include a statement to this effect in the notice. The signing of the forms as indicated in paragraph (i) of this section will satisfy this requirement.

(k) Failure to conform to the protocol for which approval has been received from the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs will be a basis for termination of the claimed investigational exemption.

(l) The sponsor of a "Notice of Claimed Investigational Exemption for a New Drug" already on file with the Food and Drug Administration should review and amend his submission to bring it into accord with the acceptable protocol where appropriate within 60 days after the effective date of this section. All differences in his protocol from the suggested protocol should be justified.

(m) Provisions under the Harrison Narcotic Act enforced by the Department of Justice are applicable to this use of methadone.

Effective date. This order is effective upon publication in the FEDERAL REGISTER (4–2–71).

(Secs. 505, 701(a), 52 Stat. 1052–53, as amended, 1055; 21 U.S.C. 355, 371(a))

Dated: March 25, 1971.

CHARLES C. EDWARDS,
Commissioner of Food and Drugs.

TITLE 26—INTERNAL REVENUE CHAPTER I—INTERNAL REVENUE SERVICE, DEPARTMENT OF THE TREASURY SUBCHAPTER A—INCOME TAX [T.D. 7100] [TREASURY DECISION 7076]

PART 151—REGULATORY TAXES ON NARCOTIC DRUGS ADMINISTERING AND DISPENSING REQUIREMENTS

On June 11, 1970, there was published in the FEDERAL REGISTER, 35 F.R. 9015, 9016, a notice of proposed rule making amending §151.411 of Title 26 of the Code of Federal Regulations in order to make clear the conditions upon which practitioners may administer or dispense narcotic drugs in the course of conducting clinical investigations in the development of methadone maintenance rehabilitation programs. Essentially, the proposal would require that practitioners obtain approval prior to the initiation of such an investigation by submission of a Notice of Claimed Investigational Exemption for a New Drug to the Food and Drug Administration which would then be reviewed concurrently by that agency for scientific merit and by the Bureau of Narcotics and Dangerous Drugs for drug control requirements.

This proposal was published in conjunction with a notice of proposed rule making published by the Commissioner of Food and Drugs for addition of a new section to Part 130 of Title 21 of the Code of Federal Regulations. Among other matters this notice contained acceptable criteria and guidelines agreed upon by the Food and Drug Administration and the Bureau of Narcotics and Dangerous Drugs for the conduct of clinical investigations of this nature. Since the original publication of both of these notices, two extensions of 30 days each have been granted for the receipt of additional written comments. After extensive review of the written comments received, both agencies have agreed upon certain alterations in the proposed criteria and guidelines which are designed to facilitate further research and to accommodate the diverse needs and interest of the scientific community. These changes have been effected by appropriate modification of the new section to be added to Part 130 of Title 21 of the Code of Federal Regulations published elsewhere in this issue of the FEDERAL REGISTER. Inasmuch as the bulk of comments received concern the criteria and guidelines appearing originally in that proposal, no modifications of the proposed amendment to §151.411 of Title 26 of the Code of Federal Regulations as published on June 11, 1970, have been undertaken.

As previously set forth, it is recognized that the investigational use of methadone, a class "A" narcotic drug requiring the prolonged maintenance of narcotic dependence as part of a total rehabilitation effort, has shown promise in the management and rehabilitation of selected narcotic addicts. In addition, it is a drug which has been shown to have a significant potential for abuse. The amendment which follows is designed to clarify the conditions under which it may be used for the specific investigational purpose indicated until such time as the results of present and future clinical investigations may indicate the necessity for reevaluation of current uses and control mechanisms. It does not authorize the prescribing of narcotic drugs for any such purpose, see 26 CFR 151.392. Moreover, it does not affect any other uses of narcotic drugs, or waive any requirements concerning the control, security, use, transfer, or distribution of narcotic drugs imposed by other Federal narcotic laws or regulations. The amendment shall become effective as of date of this publication; however, those practitioners currently engaged in the operation of a bona fide clinical investigation shall have a period of 60 days in which to submit or resubmit a Notice of Claimed Investigational Exemption for approval.

Accordingly, under the authority previously cited in the notice of proposed rule making published in the FEDERAL REGISTER on June 11, 1970, 35 F.R. 9015, 9016, the word "Dispensing" preceding § 151.411 of Part 151 of Title 26 of the Code of Federal Regulations is hereby deleted and § 151.411 is amended to read as follows:

§ 151.411 Administering and dispensing.

(a) Practitioners may administer or dispense narcotic drugs to bona fide patients pursuant to the legitimate practice of their profession without prescriptions or order forms.

(b) The administering or dispensing of narcotic drugs to narcotic drug dependent persons for the purpose of continuing their dependence upon such drugs in the course of conducting an authorized clinical investigation in the development of a narcotic addict rehabilitation program shall be deemed to fall within the meaning of the term "in the course of professional practice" in sections 4704(b)(2) and 4705(c)(1) of title 26 of the United States Code: *Provided*, That approval is obtained prior to the initiation of such a program by submission of a Notice of Claimed Investigational Exemption for a New Drug to the Food and Drug Administration which will be reviewed concurrently by the Food and Drug Administration for scientific merit and by the Bureau of Narcotics and Dangerous Drugs for drug control requirements; and provided further that the clinical investigation thereafter accords with such approval; see 21 CFR 130.44. The prescribing of narcotic drugs is not authorized for any such purposes.

Effective date. This Treasury decision shall be effective when published in the FEDERAL REGISTER (4–2–71).

Dated: March 25, 1971.

[SEAL]
JOHN E. INGERSOLL,
Director, Bureau of Narcotics and Dangerous Drugs,
Department of Justice.
RANDOLPH W. THROWER,
Commissioner, Internal Revenue Service,
Department of the Treasury.

Approved: March 25, 1971.
EDWIN S. COHEN,
Assistant Secretary of the Treasury.

Chairman PEPPER. Now we will call Dr. Brown.

Our next witness is both a distinguished doctor and a devoted public servant, Dr. Bertram S. Brown, Director of the National Institute of Mental Health, and Assistant Surgeon General of the U.S. Public Health Service. Dr. Brown received his medical education at Cornell University Medical College and he also holds a master of public health degree from the Harvard University School of Public Health.

Dr. Brown began his career with the Public Health Service in 1960 as a staff psychiatrist with the Mental Health Study Center and held various positions of increased responsibility before becoming Director of NIMH.

He has served as a consultant to four Presidential commissions, most recently as Executive Secretary of the President's Task Force on the Mentally Retarded.

Appearing with Dr. Brown is Dr. Robert van Hoek, Associate Administrator for Operations of the Health Services and Mental Health Administration.

Who else accompanies you, Dr. Brown?

Dr. BROWN. I have to my left Mr. Karst Besteman, Acting Director of the Division of Narcotics and Drug Abuse, and Dr. William Martin, Chief, Addiction Research Center, National Institute of Mental Health, of Lexington, who is scheduled as a witness.

Chairman PEPPER. We are glad to have these gentlemen accompany you.

Mr. Perito, you may inquire.

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Brown, you have submitted an extensive statement to us with several attachments. I take it you want to submit your prepared statement for the record, accompanied by the attachments. I understand part of your prepared statement contains responses to certain questions which the chairman directed to you and the secretary for the record?

STATEMENT OF DR. BERTRAM BROWN, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. ROBERT VAN HOEK, ASSOCIATE ADMINISTRATOR FOR OPERATIONS OF THE HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION; KARST BESTEMAN, ACTING DIRECTOR OF THE DIVISION OF NARCOTICS AND DRUG ABUSE; AND DR. WILLIAM MARTIN, CHIEF, ADDICTION RESEARCH CENTER, LEXINGTON, KY.

Dr. BROWN. Yes, sir.

Chairman PEPPER. Then, without objection, the full statement with the enclosures, will be received in the record. You may proceed.

Mr. PERITO. I understand you want to read the first part of that statement; is that correct, Dr. Brown?

Dr. BROWN. I would like Dr. van Hoek to make a brief statement on behalf of the Administrator of Health Services and Mental Health Administration, the agency in which NIMH is located.

Chairman PEPPER. Proceed as you will, Doctor.

Dr. VAN HOEK. Mr. Chairman, because of the time problem—with your permission, and due to the time problem—I will insert the opening statement for the record, and let Dr. Brown proceed.

Chairman PEPPER. Very well. Without objection, it will be received.

(The statement referred to follows:)

[Exhibit No. 17(c)]

STATEMENT BY DR. ROBERT VAN HOEK, ASSOCIATE ADMINISTRATOR FOR OPERATIONS, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, it is a pleasure to appear before you with Dr. Brown and Dr. Martin to discuss the critical issue of drug abuse.

As the agency within HEW which carries the primary responsibility for how health services are organized and delivered to the American people, the Health Services and Mental Health Administration performs a wide variety of functions. These range from supporting basic and applied research—including that in the area of drug abuse which is our primary focus today, collecting and disseminating data on health services delivery, to stimulating innovative approaches to the delivery of health services.

Drug abuse has been a long-term concern of the medical profession and of public health officials. Opiates were a frequent basic ingredient of widely available patent medicines prior to the passage in 1914 of the Harrison Narcotic Act. Attempts to deal with widespread noncriminal addiction through public clinics during the 1920's were fraught with problems—mostly of inadequate control over the continued use of drugs. While truly accurate statistics have never been available, it is generally conceded that the percentage of the American population addicted to narcotics reached its height in the United States prior to the passage of the Harrison Narcotic Act, and gradually decreased after 1914. During World War II traditional sources of supply were cut off, greatly diminishing the extent of the problem.

By the 1950's, use again increased over prewar levels, mostly concentrated among minority group members living in ghettos of the large urban centers. The last decade has witnessed an increase, with some youthful middle class involvement beginning in the late 1960's. Our best current estimate is that approximately 250,000 persons are addicted to narcotics. It must be remembered that no current estimates on the extent of drug abuse are wholly satisfactory.

Clearly, drug addiction, in addition to being a social, legal, and moral problem is a major medical and health problem. At the physiological-clinical level not only does overdosage often lead to tragic deaths—especially among very young users—but narcotics also pose significant dangers because of the associated medical problems of serious liver involvement (hepatitis) and other types of infections deriving from the use of nonsterile needles.

Drug abuse must also be viewed from the standpoint of the mental health and health services system. How can both the acute and the chronic needs of these physically and psychologically ill persons be met? The nature, the growth and the geographical distribution of drug addiction present unusual challenges to the American health care system.

Physicians—pediatricians, internists, family physicians, and others—need to rapidly acquire the skills and information needed for them to work effectively with addicts and other drug abusers. Unless physicians are knowledgeable about the early signs of drug addiction, about the management of acute crises—especially withdrawal—and about various treatment methods, there is little hope that they can provide the leadership which is expected of them.

A wide variety of health and medical components need to be involved in community drug abuse activities. These include emergency services, inpatient units of general hospitals, neighborhood health centers, community mental health centers, State mental hospitals, and health services in special settings such as prisons. The necessary arrangements must be developed to insure continuity of care for patients and the proper coordination of various health services. We expect that health maintenance organizations, in collaboration with specialized drug addiction services and with community mental health centers, can take significant steps to provide emergency and continuing medical treatment for narcotic addicts. I also anticipate that several of the experimental health services planning and delivery projects being developed by the Health Services and Mental Health Administration will include a major drug addiction component.

As you will shortly hear from Dr. Brown and Dr. Martin, Federal research efforts in the area of drug abuse have grown considerably in recent years. However, it is also obvious that we are only a small way down the road toward any complete understanding of the cause, treatment, and prevention of drug abuse. The Health Services and Mental Health Administration is pleased that one of its major components, NIMH, is now taking a lead role within the Department, as well as within the total Federal Government, in increasing our knowledge of the complex problem of drug abuse.

Thank you for providing me with this opportunity to express my enthusiastic interest in our common endeavor.

STATEMENT OF DR. BROWN

Dr. Brown. Mr. Chairman, I would like just to read brief portions of the statement, not the attachments, and then turn to Dr. Martin, and I would be more than pleased to return after lunch for additional questions and answers with the committee, if you wish.

Chairman Pepper. All right, Doctor, you may proceed. We will recess at 12:30 and we will receive you back at 1:30, if you will.

Dr. Brown. It is both a pleasure and an honor, Mr. Chairman, to be here today to testify for the National Institute of Mental Health, which is the lead agency for the non-law-enforcement aspects of the drug abuse problem. In addition to sponsoring a broad program of research into the drug abuse problem, the Institute is also funding treatment, training, and prevention programs through public information and education approaches. I recognize that the committee's primary interest is in the Institute's research programs, but I am aware that you would also like to have some questions and answers and discussion on the treatment and rehabilitation scene, and we will be more than pleased to deal with that. We regard the drug abuse problem as a unitary one so that I may at times refer to the Institute's treatment, training, and prevention efforts.

The Institute is sponsoring research regarding each of the five categories of commonly abused drugs. They are briefly: (1) Opiate drugs, also called narcotics; (2) sedative drugs, including barbiturates; (3) stimulant drugs, including amphetamines; (4) hallucinogenic drugs, including LSD; and (5) marihuana and related drugs, such as tetrahydrocannabinol. With regard to each of these drug categories, Institute research projects are focused on the following topics:

(*a*) Understanding the mechanism of action of these drugs.

(*b*) Studying factors which affect the development of tolerance or physical dependence which, in turn, may lead to addiction.

(*c*) Studying the effects of these drugs of abuse in animals and humans.

(*d*) Developing methods of detecting and quantifying abused drugs in body tissues and fluids.

(*e*) Lastly, and perhaps most important, developing treatment methods.

In order to understand the mechanism of action of abused drugs, the Institute is funding research on the effects of these drugs at the most basic cellular and molecular levels as well as on well defined areas of the brain. In addition, studies are being carried out to determine how the body metabolizes; that is, how it handles these drugs and which breakdown properties of metabolites are responsible for their psychoactive effects.

Studies on the ways in which tolerance or physical dependence develops focus on biochemical, pharmacological, and behavioral measures associated with tolerances to narcotic analgesics or painkillers, such as morphine. In an effort to understand how addiction occurs, these studies are exploring the effects of narcotic analgesics on brain proteins, RNA, and brain transmitters.

In studying the effects of drugs of abuse in animals and humans, researchers are exploring both long- and short-term effects and also the effects of both small and large doses. Studies are concentrating on the effects of drugs on coordination, thinking, perception, memory, and complex acts such as driving. Research is also being carried out on the potential genetic and cancer-inducing effects of these drugs, as well as on their effects on developing fetuses, a most important area.

Research into detecting abused drugs in body tissues and fluids includes research on opiates, barbiturates, marihuana, amphetamines, and hallucinogens. Better methods of detection will help those who are treating drug abusers and should reduce the expense, complexity, and error involved in screening and monitoring both patients and prisoners suspected of drug use. Some of these developments will also be as useful in law enforcement as they will in treatment. More sophisticated methods for quantifying and differentiating various types of drugs will also be useful to forensic pathologists and medical examiners. We have underway a great deal of research to evaluate the effectiveness of treatment and rehabilitation methods, a topic which the committee has gone into in great depth. I will not go into great detail on this because I think it will lend itself more quickly to questions, but let me review that area briefly.

As of March 1971, the narcotic treatment and rehabilitation programs supported by the Institute were assisting approximately 2,000 patients under the civil commitment program, of whom 1,300 were in the aftercare phase of treatment, and approximately 7,000 patients in the community-based treatment programs supported by Institute grants. Unfortunately, we cannot at present compare the results of the civil commitment treatment program, the familiar one that usually goes from Lexington and Fort Worth into the aftercare phase, with the community treatment programs because they are treating different groups of addicts. However, at a later date it should be possible to extract matched pairs of patients from the two groups and compare their degree of benefit. To illustrate the differences in the two groups, addicts being treated under the civil commitment program are 60 percent white and have an average age in the late twenties; whereas, the patients being treated in the community centers are predominantly black or chicano and have an average age in the early to mid-twenties. In addition, the two groups are not equivalent in terms of employment histories, arrest histories, or education. What we can say now, however, is that both programs seem to be helping a large percentage of the patient populations whom they are treating.

The exact percentage of patients who are being helped depends on what measure you use to evaluate the patients improvement. For example, you can look at the precent of patients who are working, or the percent who are staying out of jail, the percent who do not become readdicted, the percent who have returned to school, and so on. In the civil commitment program, a study of 1,200 patients who were in aftercare in 1970 showed that approximately 85 percent were employed, 70 percent were not arrested and spent no time in jail during that period, 35 percent were in self-help therapy, and 33 percent were pursuing their education. Patients who had been in aftercare for 3 months or more were, on the average, drug-free 80 percent of the time. A similar statement can be made regarding the heroin use of patients who were in the community treatment programs. As you know, many patients during the treatment of their addiction may abuse drugs other than heroin occasionally, such as cocaine, marihuana, amphetamines, or barbiturates. Of the patients in the civil commitment program who had been in aftercare for 3 months or more, 60 percent were not abusing any drugs. The same is true of patients who had been in the community treatment program for 3 months or more. Of the patients who are in the civil commitment aftercare phase, we know that 60 percent do not become readdicted during their first year in aftercare. Of the remaining, 25 percent do abuse some drugs or become readdicted and require further hospital treatment. About 15 percent were dropouts.

I will skip over our statement on methadone, since that has been adequately discussed earlier today, although I think not all of the issues were fully brought out in the way you would like.

At this point, I do not know of any conclusive studies which demonstrate significant differences between the benefits achieved by methadone and those benefits achieved by other treatment methods.

Mr. Chairman, our overview of the Institute's research program would not be complete unless I mentioned three additional activities. First, the Institute's program of supplying standardized pure preparations of drugs of abuse to qualified researchers. Originally this program focused on distributing LSD to researchers through the joint FDA–NIMH Psychotomimetic Agents Advisory Committee. With the increased use of marihuana and related drugs, the program has expanded to include a wider spectrum of drugs, including psilocybin, radioactively tagged and untagged tetrahydrocannabinol (THC), the active ingredient in marihuana, and most recently heroin for research purposes.

At present the Institute is not only supplying requests from U.S. investigators but has established procedures with the Canadian Food and Drug Directorate and the U.N. Narcotics Laboratory for supplying and distributing these drugs for research in Canada and Western Europe. Information generated by research performed in foreign countries should help the U.S. research program. The number of requests for research drugs has doubled in the past year. Since this program's inception, 650 requests for research drugs have been filled, 250 of them for marihuana or its derivatives.

Secondly, the Institute is currently pretesting a number of educational materials including pamphlets, posters, workbooks, and films to determine their usefulness in reaching different groups within the population. Some of the materials and educational materials, which have previously been developed through the National Clearinghouse for Drug Abuse Information, have been used in the Institute's training program. In fiscal year 1970, this program provided 1- and 2-week courses on drug abuse for over 1,500 professionals, allied health workers, Government officials, and members of the public.

Lastly, I might mention the program being conducted at the Addiction Research Center by Dr. William Martin to develop improved methods of determining the abuse potential of drugs before they become problems on the street or in the clinic, and to study pharmacological treatments for narcotic addiction. Dr. Martin and his associates are investigating the conditions under which animals will self-administer drugs and are determining the abuse potential of drugs before they become problems on the street or in the clinic, and to study pharmacological treatments for narcotic addiction. Dr. Martin and his associates also are investigating the conditions under which animals will self-administer drugs and are determining to what extent each drug induces physical and psychological dependence, behavioral toxicity, and harmful physiological effects. At this point, I would like to introduce Dr. William Martin, who can tell you in more detail about these research programs.

I would like to turn to Dr. Martin who will also give an overview of the research program at the center.

STATEMENT OF DR. WILLIAM R. MARTIN

Dr. MARTIN. Thank you, sir. I appreciate this opportunity to appear before you today, and I would like to read my brief statement.

I am the chief of the NIMH Addiction Research Center. I am a physician and my particular aiea of competence is in the area of clinical and neuropsychopharmacology. I have worked the last 13 years on problems related to understanding the process of dependence, its diagnosis and its treatment.

The Addiction Research Center (ARC) is located in the Clinical Research Center at Lexington, Ky., and is both a basic and clinical research unit constituted of 56 employees, which includes six physicians and seven professionals at the Ph. D., or master's level, as well as administrative and supporting staff. The disciplines represented in the ARC include pharmacology, psychiatry, neuroendocrinology, biochemistry, drug metabolism, neurochemistry, clinical psychology, and physiological psychology. Our major areas of interest and work have fallen into two categories: (1) Prevention, and (2) diagnosis and treatment of addiction.

The major thrust of the prevention programs is to understand the basic modes of action of the different drugs of abuse and in so doing to develop methods for the assessment of their abuse potentiality. The ARC has developed methods for assessing the abuse potentiality of the narcotic analgesics such as heroin, sedative-hypnotics such as secobarbital and pentobarbital, amphetamines such as dexedrine and speed, and LSD-like hallucinogens, and has conducted extensive clinical studies of the actions of marihuana and the tetrahydrocannabinols. It has for many years provided advice to the National Research Council and to the World Health Organization concerning the abuse potentiality of new strong analgesics.

The most important contributions concerning the diagnosis and treatment of heroin addiction that have been made are, in my opinion, (1) the demonstration that the chronic administration of morphine to both man and animals is associated with long-persisting abnormalities following withdrawal and that these physiological abnormalities are associated with relapse of postaddict animals to narcotics and appear to be associated with an overresponsivity to stress; (2) the role of conditioning in relapse and in drug-seeking behavior has been explored and in part demonstrated; (3) three narcotic antagonists, cyclazocine, naloxone and EN-1639A, which is a drug which is very closely related to naloxone structurally, have been studied at the ARC, and their potential utility for the treatment of narcotic addiction has been demonstrated and suggested. We believe that the narcotic antagonists may be of use in extinguishing the protracted abstinence syndrome, as well as conditioned abstinence and drug-seeking behavior.

The first drug that we studied with this end in view was cyclazocine, which is a very potent drug, but produces some undesirable side effects which has made it necessary for physicians to be both knowledgeable of its pharmacology and skilled in its use. The second drug that was studied was naloxone, which proved to be a pure antagonist without undesirable side effects, but which suffered from the disadvantages that it was short acting and quite ineffective by the oral route. We have continued to study other narcotic antagonists and have recently investigated EN–1639A, which combines the structural features of both naloxone and cyclazocine, and have found that this agent is two to three times more potent than naloxone and cyclazocine and that it has a longer duration of action than naloxone. We have further found that we can, for all intents and purpose, antagonize both the euphorogenic and the dependence-producing effects of large doses of morphine with an oral dose level of 50 milligrams per day. Thus, we feel that we have made substantial progress in finding the ideal narcotic antagonist which meets the criteria of: (1) Being potent, 10–50 milligrams per day; (2) having a long duration of action; (3) having no side effects, being a pure antagonist; (4) being orally effective; and (5) being suitable for depot administration.

Additional efforts need to be undertaken to develop not only longer acting pure antagonists, but depots which will allow antagonists and methadone-like drugs to be administered at 2-week to monthly intervals and which will provide effective levels of the drug for this period of time. If we can achieve these goals, I believe that certain motivated addicts can be benefited by this approach. Because the antagonists do not produce physical dependence and are nontoxic, they may find a role in the treatment of the juvenile experimenter.

Turning now from the anatgonists to the general problem of drug dependence, it is my personal, though professional, opinion that mounting an effort to deal effectively with drug abuse problems specifically and the problem of psychopathy generally should start with the assumptions that we do not have an understanding of the basic psychopathology or pathophysiology of these disease processes and that we do not have effective and nontoxic therapeutic measures to deal with all except a small proportion of the patients incapacitated with this disease process.

It is further my conviction that both the size of the problem and its impact on society will continue to increase until we find definitive solutions. The reasons for this conviction are: (1) The number of abusable drugs will increase because of the growth of the chemical and pharmaceutical industries, (2) the impact of psychopathic behavior on society will become less tolerable as our society increases in size and complexity, and (3) the complexity and stability of our society lessens the impact of social controls on psychopathic behavior. Because of the imminence of the problem, I would recommend that the following steps be taken: (1) Increase our efforts to identify drugs with an abuse potentiality early and to utilize appropriate control measures, (2) increase our efforts to understand the psychopathology and pathophysiology of psychopathy and through this effort to rationally formulate therapeutic processes, (3) aggressively search for nontoxic, nonaddicting drugs that may be effective in the treatment of psychopathy.

Thank you, sir.

Chairman PEPPER. Doctor, I think some of my colleagues will share my curiosity, and want to know what psychopathy is.

Dr. MARTIN. I guess, in the general sense, we mean people who manifest criminal types of behavior. Looking at this more from a behavioral aspect, many of these individuals are characterized by the fact that they are overly concerned with themselves and overly concerned with the immediate present, which has the implication that they do things primarily to gratify themselves and think very little about the future.

Chairman PEPPER. Have you anything else you would like to say until 12:30, or shall we recess now until 1:30?

Dr. BROWN. I think this would be an appropriate time to recess. I just want to add my comment on the term "psychopathy," which Dr. Martin has used. Those who have worked in the fields for 10 or 20 years become deeply impressed by some of the behavioral and other character aspects either caused by or seen as related to serious drug addiction and drug dependence.

This particular behavior, which we often describe as hedonistic, self-seeking, or self-serving, is, of course, one of the most troublesome features, and one of the hallmarks of your committee's charge, that is, those persons who will violate society's mores, who steal and do other illegal things.

Dealing with this basic behavior, either as a cause or an effect, is one of the most important dimensions and one of the reasons we feel it is so important to extend our research efforts in this area.

Chairman PEPPER. In general, is there a certain type of mental, or whatever you call it, complex that results in such human behavior—is there some general characteristic that you would find in people who are the users of heroin, addicts of heroin? Do they come into certain psychiatric categories and have certain general characteristics?

Dr. BROWN. Dr. Martin has had more direct experience with that. Again, my information is more based on extensive contact with people who themselves have worked extensively with addicts, as we would say, in a scholarly world on secondary sources rather than an extensive primary source. There seems to be some generally central characteristics along the lines of self-seeking, gratifying, hedonistic aspects. However, there seem to be many routes into heroin addiction. Many types of people are involved, and it is my own professional judgment that it is a complex thing with no simple one-character behavioral personality facet. That is my own judgment from the material, but if you would like to answer the question that Chairman Pepper gave to us, it might be useful.

Dr. MARTIN. Thank you, sir. I think I would agree completely with what Dr. Brown has said, and perhaps just elaborate a small bit on it.

When you look at the characteristics of individuals that come to, for example, our hospital for treatment for drug addiction, they fall into probably three or four categories which indicate the complexity of this problem.

The first is the type that I have called the psychopath, a person who needs immediate gratification and is not very particular about how he goes about obtaining this gratification.

In addition to this, however, there are a significant number of people that have other types of problems; for example, depression and chronic anxiety. This group, perhaps, constitutes 25 percent of the addict population. And there probably is another 25 percent of the population that we do not understand very well, but which Dr. Kolb described many years ago as frank hedonists that have a personality that makes them like to get intoxicated. We know very little about this group.

Chairman PEPPER. This is a little bit out of the area which we are discussing right now, but it relates to our problem as a committee concerned with crime. I have heard that the teachers or the psychiatrists who know something about young people say that it is possible to determine in the very low grades in the public schools, which students have a predilection toward the kind of conduct in later life, that we call criminal conduct.

Is there any such discoverable characteristic in children in the first few grades of public school?

Dr. BROWN. There is a serious body of research which has attempted to do this, to predict which students, say, in the first grade would go on in teenage and young adult life to criminal careers, and the evidence is somewhat equivocal at this time.

I would say, again, we have carefully looked into this and we will be glad to submit sort of a precis for your committee, but we do not yet have that hard knowledge to predict which child would turn out to be a criminal.

(The material referred to above follows:)

The development of efficient prediction and prevention efforts to cope with the problems of delinquency and crime is greatly needed. However, in view of current scientific and technological limitations, viz., the lack of accurate and economically feasible predictive devices, very serious scientific and public policy problems have to be considered. The younger the age at which predictions are made, the greater the technological and social policy problems. From a scientific standpoint, the reliability and accuracy of the predictions remains questionable, e.g., to say at age six or eight that a particular youngster is definitely headed for serious trouble. From a public policy standpoint, there are serious problems in labelling a child as "delinquency-prone" and then intervening in his life—before he has even displayed any overt problem behaviors.

It is a statistical and empirical fact that predictions aimed at events which have relatively low frequencies (e.g., serious or violent crimes), invariably have rather high rates of errors. Thus, while devices such as the Glueck Delinquency Prediction Scales do pick out high proportions of youngsters who may actually become delinquent, they do this at the cost of having rather high rates of "false positive" errors, viz., persons who are predicted to be delinquent but who do not later display such behavior. In addition, behavioral and social scientists point to various other problems and complications which result from giving designations and labels (e.g., "delinquency-prone") to children who have not yet displayed problem behaviors. For example, such labels and preventive efforts could lead to "self-fulfilling prophecies".

In attempting to predict and prevent delinquency, other important facts need to be considered. The great majority of youngsters engage in acts which could bring them into official contact with the law, but most such youthful pranks and problem behaviors do not come to official attention. Furthermore, police statistics tend to reflect social class and related biases in the handling of problem behaviors. Thus, youngsters engaging in delinquent conduct will more likely become a police statistic if they come from lower social class and economically and socially deprived families. Youngsters showing the same behavior but coming from middle and upper class and more stable families, will not as likely receive official adjudication. In other words, officially labelled delinquent behavior does not simply reflect the problem displayed by the individual, but also reflects the manner in which the community and social agencies have responded to that behavior.

A large proportion of youngsters adjudicated as delinquent tend to be involved in status or minor offenses (e.g., truancy, running away from home, incorrigibility, etc.), rather than in violent crimes. Also, a study which the National Institute of Mental Health has been supporting indicates that nearly half of the youths committing their first offense, do not have further contact with the law, while an additional 35% of these subjects appear to have stopped engaging in law-violating behavior following their second offense. Thus, it appears that many youths go through a phase of adolescent turmoil, engage in disruptive and deviant behaviors, and then mature into fairly stable and constructive adults. In light of these facts, there are both practical and policy questions regarding the particular point in a youngster's life when the community should formally intervene to prevent further misconduct. Given the present limitations of our predictive devices, as well as the lack of clearly demonstrated success of most delinquency-prevention programs, it remains questionable whether limited manpower, resources and efforts should be devoted to starting prevention programs at the second or third grade levels. At this early age problems may not yet be manifested, and whether particular youngsters are in fact headed for serious criminal careers cannot be accurately predicted.

Thus, there appear to be a number of difficulties associated with attempting to predict and prevent delinquency at early ages. Until the scientific, technological and related difficulties have better been addressed, the likelihood of effective and feasible prevention efforts remains somewhat poor. Given these considerations, the National Institute of Mental Health is continuing its research efforts to develop more accurate predictive devices, as well as to learn—through longitudinal studies—about the characteristics of that small but hard-core group of youngsters who display early problem behaviors and who do in fact go on to more serious criminal careers. The Institute is also involved in research aimed at improving the intellectual, emotional and interpersonal functioning of such children and youth, e.g., the development of instructional programmed materials designed to enhance academic performance, study skills, and interpersonal behavior. The National Institute of Mental Health is also supporting research to improve the effectiveness of those social institutions and agencies, such as parents, families, and school systems, which attempt to socialize children and youth, and to bring about a more positive reciprocal interaction between parents and children.

Chairman PEPPER. Well, shall we convene at 1:30? Will you be back, then, gentlemen?

Thank you very much.

(Whereupon, the committee recessed at 12:35 p.m. to reconvene at 1:30 p.m. on the same day.)

AFTERNOON SESSION

Chairman PEPPER. The committee will come to order. We will resume with Dr. Brown's testimony.

STATEMENT OF DR. BERTRAM BROWN, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY DR. ROBERT VAN HOEK, ASSOCIATE ADMINISTRATOR FOR OPERATIONS, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION; KARST BESTEMAN, ACTING DIRECTOR OF THE DIVISION OF NARCOTICS AND DRUG ABUSE; AND DR. WILLIAM MARTIN, CHIEF, ADDICTION RESEARCH CENTER, LEXINGTON, KY.—Resumed

Chairman PEPPER. Have you any estimate as to the number of heroin addicts in the country that would be different from the 200,000 or 300,000 estimates that we have received?

Dr. BROWN. Our current estimate is 250,000. We in truth have the same estimate as you have heard. Several hundred thousand, perhaps somewhere between 150,000 and 400,000. Our best guess is a quarter of a million.

Chairman PEPPER. Now, Dr. Edwards told us today that about 30,000 people are being maintained; that is, are being treated constantly by the use of methadone. Do you generally agree with that figure?

Dr. BROWN. Yes; I think it is a little on the high side, and if I were asked to give a number, I would have guessed closer to 20,000 than 30,000.

Chairman PEPPER. So, to use a maximum figure, of your estimate of possibly 250,000 heroin addicts in the country, about less than 50,000 of them are being treated by any kinds of drugs?

Dr. BROWN. Yes; there is an additional small number that are on other drugs, mostly experimental ones that you have spoken of. These include cyclazocine and naloxone, but that additional thousands that you can count on one hand, so it still falls under 50,000.

Chairman PEPPER. So, the maximum number in your opinion, of heroin addicts in the United States being treated by some kinds of drugs would be under 50,000?

Dr. BROWN. Yes, sir.

Chairman PEPPER. That would leave approximately 200,000 heroin addicts that are to be treated by some other method.

What are the other methods currently used in the treatment of heroin addiction other than the use of drugs?

Dr. BROWN. There are several methods. One is the therapeutic community, particularly Synanon and other similar models. One is the comprehensive approach that combines counseling, jobs, vocational referral, and training. This is often called multimodality. Dr. Jaffe has popularized this phrase.

There is individual treatment that a physician might take on with an individual patient to see what he can do. There are specific subtreatments such as being a member of a halfway house or some other semi-institutional setting.

This is the range of treatments that I am aware of. Mr. Besteman might want to expand on a few others.

Mr. BESTEMAN. I think essentially most have been covered. There are still some treatment programs that go on in the traditional institution, care away from the home community, and we do know of crisis treatment centers that are more related to drug abuse than they are, say, to addiction.

Chairman PEPPER. Those are clinical or institutional approaches; are they not?

Dr. BROWN. Yes.

Chairman PEPPER. They require personnel, require trying to put the person in a proper frame of mind, trying to get him a job, give him therapeutic treatment that may be necessary and the like. It is sort of an institutional approach. And also sort of a multiple approach.

Dr. BROWN. That is correct.

Chairman PEPPER. A psychological as well as physical approach to the individual.

Dr. Brown, what would you say is the state of the art at the present time in the development of drugs for the treatment of heroin addicts? Would you give us your own summary?

Dr. Brown. The state of the art is primitive and promising if I can put together two words. It is primitive only in the sense that until we understand some of the most basic mechanisms of what the nature of addiction is, what the nature of dependence is, it will be difficult to develop drugs tailored specifically to actions you do not fully understand.

On the other hand, we have promising leads in several areas that your committee is exploring. These include blocking agents, antagonists, and perhaps even other drugs that relieve the secondary effects such as anxiety, tension, and depression.

These are some of the promising leads.

Dr. Martin may want to give you an even more thoughtful or knowledgeable response to that question. I think I would like very much for him to answer that question.

Chairman Pepper. That is what we would like to get. The doctor covered it pretty well in his statement, but I want to get in the record about the present state of the art, as it were, on the development of blocking or immunizing or antagonistic drugs in respect to the treatments of heroin addicts.

Dr. Martin. I am not the diplomat that Dr. Brown is. I would say the state of the art is primitive.

I think we have several leads that may in the end prove helpful. We have the use of the "hair of the dog"; namely, the methadone-type of approach, or acetyl-methadol, that may help perhaps 25 percent, perhaps more of the addict population.

We have the possibility of using, developing——

Chairman Pepper. Excuse me. You mean being used for the treatment of that large a percentage or maybe as adapted for use with respect to that large a percentage of the heroin addicted population?

Dr. Martin. I think that percentage of the total addict population may very well be amenable to this type of treatment.

I think a smaller percentage, but nevertheless a significant percentage, of the addict population would be amenable to the use of the narcotic antagonists, and I think by eventually finding a way of administering both the methadone-type of drug and the narcotic antagonist on an infrequent basis, using a depot, so that the patient is protected throughout the intervening time, may facilitate very definitely both treatment modalities or both types of treatment.

I think that our efforts to develop a depth form are something that should be encouraged and helped and I think it is an effort that shows great promise. It would, I think, for example, have one very practical consequence, that it would eliminate diversion.

Chairman Pepper. Eliminate diversion?

Dr. Martin. Diversion, because the patient would carry the drug with him inside of his body in a way that it could not be easily extracted.

At the present moment, I think that these are the most promising leads in the area of chemotherapy, but I do believe that we should very definitely attempt to set our sights a good deal higher than this and hopefully develop drugs that could not only help the addict but all other patients that had difficulties that were similar to his, and I believe in so doing, we could not only beneficially affect the addiction problem but also in all probability reduce other forms of deviant behavior such as alcoholism and perhaps other types of criminality.

Chairman PEPPER. Well, now, Dr. Brown and Dr. Martin, both of you have described the state of the art so far and the development of drugs for effective use in the treatment of herion addiction as primitive, but that there are certain leads that do hold hope and promise.

What is being done to develop those leads and who is doing it?

Dr. BROWN. We have, as you know, a sizable research program and that research program has several facets or dimensions to it.

Chairman PEPPER. Would you describe it to us and tell us how much money you have for it?

Dr. BROWN. Yes, I will. The program for research overall for 1971 in this area, the overall drug area, drug-related area, is approximately $17.7 million.

Chairman PEPPER. Excuse me if I may interrupt you. Is your Agency, the National Institute of Mental Health, the Agency primarily charged by law with carrying on research and developing appropriated drugs in this area?

Dr. BROWN. Yes. That is our prime responsibility, but due to the nature of the complexity of the task, we work cooperatively with the other agencies, specifically, for example, with the rest of NIH, which has promising leads in basic treatment problems, and with the FDA, so that we can work cooperatively. We have the primary responsibility, however, in this research.

Chairman PEPPER. You have a budget for 1971 for this area, the research in this area, of $17.7 million?

Dr. BROWN. $17.7 million. And we have a table, as you know, which spells this out in considerable detail. But I thought it would be helpful to point our the different ways we go about our research effort.

For example, Dr. Martin is the head of the Addiction Research Center at Lexington, which has available to it an actual clinical population, prisoner population, and other human beings, people to work on, as well as doing more basic pharmacological laboratory and other studies. It has carried out this research for over 20 years and has some of its facets, for example, in the screening of new drugs that have abuse potential. That is one facet of our program.

A second one is the research we do on the NIH campus in basic pharmacology, neurophysiology, and, of course, here we are very, very proud that one of our researchers, Dr. Julius Axelrod, received the Nobel Prize for basically elucidating how the brain works. This probably has implications for drug treatment and drug prevention. For example, his research shows promise in making available to us new types of agents that will be helpful not only in alcoholism and drug abuse but conditions as diverse as depression and Parkinson's disease. This is our basic research effort on the NIH campus.

Dr. Axelrod, on his own initiative, has turned his team's attention to the drugs that concern us here, such as marihuana, and what happens to the body and its metabolism in the body. We are pleased he is going to focus his very high talents on such an effort.

Chairman PEPPER. What is the doctor's name?

Dr. BROWN. Julius Axelrod, a recent recipient of the Nobel Prize. That is the second facet, the Addiction Research Center, and the NIH laboratories.

The third aspect is our contract program which is heavily emphasizing the marihuana field. The reason that our contract program has so heavily emphasized the marihuana field was the need for rapidly getting answers to some pressing questions. We had to develop contracts to grow our own so that we could have a plant with a given quantity of the active agents, make this extract from the plant, make it available for animal studies and for clinical studies. We also are going overseas to find populations that have used such a drug as marihuana for 20 or 30 years to see what happens in long-term use, an interesting analogy, I might say, to the methadone question. We want to see what happens when you have used a drug for 20 or 30 years and you have to go to populations that have really done that.

A fourth facet to our program, which is perhaps our largest, is the research grants that go out rather typically to universities, community facilities, and hospitals.

Lastly, of course, we do research and evaluation of our treatment programs to see which ones are working or not. This is research in the sense of trying to see whether or not methadone is effective, how effective the therapeutic community is contrasted with methadone and to find out what happens to untreated addicts. The evaluation of the treatment programs would be the last dimension of our research effort.

Chairman PEPPER. Doctor, are you carrying on all the research and developing all the leads that you as a scientist, as a man in charge of this Agency, primarily responsible for this program, would like to carry on?

Dr. BROWN. As a scientist, eager to pursue answers to pressing problems, I have the problem of an uncurbed, untrammeled appetite for research sources beyond what the generosity that you would provide could make available.

Chairman PEPPER. I am glad to hear that. You are the kind of fellow we are looking for. We want to give you some more money.

Mr. BRASCO. Ask us. Ask us.

Chairman PEPPER. How much money can we give you? How much can you use?

Dr. BROWN. I must finish my statement. As the Director of an agency which has a range of problems to consider in other related areas, schizophrenia, depression, disturbed children, suicides, neurosis, psychosis, a range of very important problems, I have to balance my desires for this field versus the other problems that come under my jurisdiction.

Chairman PEPPER. We do not. We are not responsible for all those other subjects. We are right now concerned about trying to do something about the heroin addiction problem in the United States and we are looking, with blinders on for the moment, at that particular problem and we are looking for somebody that can use money wisely in developing some of these leads that will give us the hope that maybe instead of the primitive state of the art that you and Dr. Martin have described, in a short time the genius of America, under your scientific leadership, might produce something that would deal adequately with this challenging and tragic national problem.

I can hardly believe that you have all the personnel and all the facilities and the ability to implement all the programs that your scientific mind would like to see implemented and what we are looking for is something to recommend to the Congress.

If they do not want to do it, this is up to them. The President has just stated this week that he intends to launch a massive attack upon the drug problem in this country. Well, what sort of an attack is he going to mount? What do you mean, a massive program?

We just read in the paper yesterday of two young people found dead on the steps of a hospital from taking heroin.

So, we are dealing with something that is taking the lives of a lot of people in this country, costing our people a lot of money, paralyzing our courts, and generally it is one of the great tragedies of the country.

What we are looking for is what can be done more than is being done in the technical research field. What more research can be carried on wisely? And then the next thing we want to know from you and others is what kind of treatment and rehabilitation program should be in effect in every community in America to deal adequately with this problem, and that is what we are going to recommend to the House.

Now, if the House does not want to do it, it will not be our fault, but we want to offer to them what we believe they should do in the national interest and we want you to tell us what we can recommend. And do not be modest about it. Do not feel that you are in any way violating any obligations. We, as a committee of Congress, are just asking you to give us technical advice. Whether the Bureau of Management and Budget recommends it, or whether Congress appropriates it, is not your business but we are asking you as adviser to the committee, as a witness here today, to tell us if you were speaking only as a scientist, not as an administrator limited by other obligations and responsibilities, if you were advising us as a scientist, what you think you could wisely do in the national interest with respect to the heroin problem in the area of research.

Dr. Brown. I deeply respect your concern and I think it is not so much a matter of having blinders on so much as focusing on the problem. I really think it is more—the best spirit of the latter rather than putting blinders on as you describe it.

Indeed, as we described our research efforts in terms of basic understanding of the brain, some additional resources would be useful and I think would provide the base for very important answers in terms of exploring the promising leads that Dr. Martin and others of your witnesses have described, such as the blocking agents and the antagonists.

As you know, Mr. Chairman, I personally explored in some depth the wisdom of trying to see whether we can get an immunizing agent, a vaccine. This is controversial and difficult. It may or may not pay off and it has to do with a different approach than having an antagonist or blocking agent. It has to do with the fact that the state of the art is such that we could take a chemical such as heroin or tetrahydrocannabinol, or cocaine, link it to a protein, develop antibodies so that perhaps we could have people protected in the sense that you are protected from polio.

The state of the art is promising. I am not sure how much money, but perhaps just a small $2 or $3 million effort might pay dividends in 2 or 3 years.

This is worth trying. It is the sort of lead, I think, that is promising. We would not begin such a program unless we spent——

Chairman PEPPER. You could even give that to somebody who has not become an addict to keep him from becoming one; could you not?

Dr. BROWN. Well, the problem with an approach as new as this is that it is fraught, if I can use a fancy word, "loaded" would be a better word, with ethical and moral difficulties but, on the other hand, the problem is so severe that I think every lead is worth pursuing.

Chairman PEPPER. Well, parents give their children shots to immunize them against smallpox and typhoid fever and all, and with the current tendency of young people to take drugs, you might immunize them against drugs as you go along if you could develop your immunization product.

Dr. BROWN. Well, I do not mean to get at all light about so serious and weighty a topic but, for example, just picture the issue we would have to face if we were to develop such a vaccine against alcohol and whether or not people would want to immunize against a lifetime of alcohol. This gives us a sense of the problem. so I think you would not be immunizing against heroin unless you were fairly far down the social, legal, ethical pike. What I am trying to say, resources expended on this kind of approach might develop new kinds of knowledge that might be helpful in terms of treatment programs.

The state of the art, and science, is somewhat primitive along the lines Dr. Martin and I have spoken to. Perhaps, what is really troubling the committee and the society about the state of the art, about how to treat this problem, is even more primitive and we do have a case of just exploring with great difficulty, find out the best treatment program. Our inability to distinguish the effectiveness of, say, a methadone program from a multiservice clinic or to distinguish those who would benefit from methadone from those who would not, are areas of clinical research or evaluation research that are well worth exploring and some modest resources in these areas would pay handsome dividends.

Lastly, I would like to say that I am pleased and proud that the President does plan new drug abuse initiatives and that I would expect that new resources will become available and I am hopeful that they will be also in the area of research so I think you are on the same wavelength as the President

Chairman PEPPER. How much are you spending now in your Department to develop a vaccine drug?

Dr. BROWN. Right now we are spending no actual money, sir. It is just an example of a kind of scientific technological thinking.

Chairman PEPPER. Why are you not spending money on that?

Dr. BROWN. For several reasons. One is because that is a far-out promising lead and with the resources we have available, we are spending the money on the more promising far-out leads.

Chairman PEPPER. Well, I guess you are telling us, then, you do not have enough money to spend on the far-out leads. You are trying to spend what you have got on the leads that are more profitable and more probable but you never know when the far-out one, the long shot, is going to win the race; do you?

Dr. Brown. I notice the picture on the back of the wall. There must be several people there who tried the long shot and looked awfully sad

Chairman Pepper. So in the public interest, a few more experiments might make all the difference. If I recall correctly, up until penicillin and some of these antibiotics came along, the thing they had to treat syphilis with was No. 606, and as I understand it, the reason it has the name No. 606, is the 606th experiment was the one that proved successful. If they had stopped at 605—if somebody said that is too far out—we would not have had any remedy for syphilis until the antibiotics came along.

Now, why should a big Nation like this be denied the possible fruitful success of something that in your scientific judgment is worth following as a lead? Is it not in the public interest that you should have an opportunity to pursue whatever you think might lead to a successful conclusion?

Dr. Brown. My answer to that is yes, sir, and no, sir. By yes, sir and no, sir, I mean that the resources are provided by the will of the people through the Congress and I think that is your responsibility. Our job is to be credible and honest witnesses and to spend that which is made available to us prudently and well. The decision about how much the Nation spends is very much in the hands of the executive and the legislative.

Chairman Pepper. Well, that is what we are looking for. We share that responsibility, Dr. Brown, with the executive. This committee has to have something to tell the Congress. We cannot say, well, we think you ought to provide $25 million more a year to NIMH or $50 million or a $100 million which is a very picayunish sum compared to the expenditures of this Nation and the gravity of this problem and the cost of this problem to this country. But we have to have some sort of a factual basis.

If we could say that Dr. Brown of NIMH said if he had $25 million more a year or $50 million more a year, he could follow a lot of promising leads that might possibly result, in something much better than what we now have, it would support our recommendation. You and the other people who have testified here told us about methadone. It is not appropriate to everybody. In fact, Dr. Dole told us in New York that it is only adapted really to the hard-core addict and Dr. Edwards here this morning suggested that everybody should not have methadone. You should examine the recipient or the prospective recipient before you begin to give it to him. And it is addictive and it may have certain side effects.

You do not know yet what may be the long-term effects of its use. So, you have to keep on trying to refine this product, and maybe, find others. Do you think, on the whole, methadone is the best thing we have now?

Dr. Brown. I think it is the most promising practical treatment that we have available.

Chairman Pepper. All right, Now, then, the problem is to try to find something better that has less faults or less objectionable attributes, and our curiosity is how we are going to develop in the national interest these new products.

Let me ask you first, is the drug industry coming up with anything new? Does it look like they are likely to come up with anything that will be safe and effective in the immediate future?

Dr. Brown. I think that the drug industry has expertise in several promising developments. I am not personally expert on this subject. Again, I do not know whether Dr. Martin has anything to contribute on this.

Would you care to comment, Dr. Martin, on what you think the drug industry might be able to provide us on this?

Dr. Martin. It is my personal opinion that, at this time, the drug industry has not made, and as far as I can see, will not make a heavy commitment to an effort directed toward the treatment of drug addicts.

Chairman Pepper. Well, then, I guess the perfectly reasonable and understandable reason is that they have to make a profit to survive and they can only put a certain amount of money in research and they must have some probabilities of return and the like.

The drug houses do have a lot of laboratory facilities and personnel, I suppose, capable of competent research. But some of the needed research has no profit potential

I have been toying with this idea: The Federal Government might say, all right, we will put up half the money or we will put up two-thirds of it with the understanding that if this thing turns out to be no good, no profit, then you do not repay us but if you ever make a profit out of this thing, the first profit has to come to us. You have to pay the Government back because we risked capital with you.

Do you suppose that would have any incentive upon the private drug industry?

Dr. Brown. Yes; I am pleased that you are exploring this because it is a very difficult area that involves patents, profits, and yet the problem is so serious that the potential research capacity of the drug industry should be exploited, and I mean exploited in the best sense of that term.

Chairman Pepper. I would like you, as head of NIMH, to have some money available, to place it with them under proper restrictions and safeguards. Say to them, "We will share with you some all-out, some long-shot projects and programs with the understanding that we have a proper agreement that the first profit you make out of this will repay us for the amount of money that we put in it. The rest of it you keep. We will not insist on the patents or anything like that. We just want our money back."

Well, now, that is one area where we could stimulate competent research. What about the universities and the colleges? What about them as a possible source of the development of new leads?

Dr. Brown. Yes; this would be a prime place that one could look to for study, research, exploration, knowledge, new leads, et cetera. If you had couched the question in terms of how would you expend *x* amount of money, what would you do and what would be the return, that would be a fair question.

Chairman Pepper. How much money do you now have available to give by way of encouraging research to the colleges and universities, in the drug area?

Dr. Brown. The total, as I said, is $17.7 million, perhaps of which $9 to $10 million is available to universities, colleges, and the like.

Chairman Pepper. And you are using that now for that purpose?

Dr. Brown. Yes; we are.

Chairman Pepper. You have how many institutions participating?

Dr. Brown. I do not have the exact number but I am sure it is in the area of 100 or so and I will be glad to make that figure available.

(The information referred to above follows:)

The number of colleges and universities conducting research with funds from the National Institute of Mental Health in field of narcotic addiction and drug abuse is 98.

Chairman Pepper. Are any of them working on this possible immunizing drug?

Dr. Brown. No.

Chairman Pepper. Because you have not made any grants for that.

Dr. Brown. That is correct.

Chairman Pepper. You not did have the money, as a matter of fact, I suppose, for that.

Well, we have talked about the drug houses and the colleges and universities. Now, what other sources are available to help in the development of these technological leads? Are there other areas?

Dr. Brown. Yes; there are in terms of doing the clinical research, the actual comparison of treatment methods, all the facilities that do such things, including State institution and aftercare programs, clinics, and hospitals. The actual clinical facilities would be promising places to explore such questions.

Chairman Pepper. In other words, if you had the money to place, you could look over the country and find what clinics or hospitals you think would wisely use the money that you might make available in areas that you thought were worthy of exploration?

Dr. Brown. That is correct, and then if we are going to look to what—we might coin a term right now, "the creative far out, not the foolish far out," one might look to special places for this sort of thing.

For example, there are local community action groups, people's organizations, in the model cities and HUD and poverty areas where research might be done in a way that is somewhat unusual. For example, they could help us to see which youngsters at ages 14, 15, or 16, become addicted. No university could get into that community to ask questions. We would go, in other words, to somewhat unorthodox places that were seriously responsible, local urban organizations, and ask them to help get answers to some key research questions. This would be a little bit more unorthodox but I think it could be very productive.

Chairman Pepper. While I think of it, Doctor, have you approved any project or have you in your mind concluded that there are projects that would be promising which you have not funded because you did not have the funds under the appropriation that you now have?

Dr. Brown. Yes; there were promising research projects, particularly in the area of narcotic antagonists, that the NIMH was unable to support because of insufficient funds.

Chairman Pepper. Could you give us the overall figure and make the details available to us?

Dr. Brown. I would be glad to do that.

Chairman Pepper. Do you happen to remember what the overall figure is?

Dr. Brown. We do not have that at hand at the moment.

(The information requested follows:)

Additional research is sorely needed to develop a long-acting narcotic antagonist to be used as a tool in treatment. The National Institute of Mental Health had planned to let contracts for this purpose, but was unable to do so because of lack of funds. Promising proposals in this area amounted to $360,000 and are detailed below:

Investigator and descriptive title:	*1st year*
Alpen—Battelle: Implantable slow release matrix—biodegradable polymer	$75, 000
Gray—University of Vermont: Preparation of relatively insoluble salts in aqueous or oil suspension	35, 000
Meloy Laboratories: Polymer—coupled narcotic antagonists for intramuscular administration	60, 000
Willette—Connecticut, University of: Long acting forms of existing antagonists	40, 000
Yolles—Delaware, University of: Sustained release polymer process	150, 000
Total	360, 000

Note.—Subsequent to this hearing, a $67,000,000 budget amendment was submitted to the Congress and passed by both Houses.

Chairman Pepper. Now, you have described those three sources, pharmaceutical houses, colleges and universities, and the institutions, community and otherwise. Are there others that can be helpful to you if you could fund them?

Dr. Brown. Well, the only other category that we are doing some funding with crosses over the other three and I think it is tremendously important in the drug area. That is, certain types of research that can be best done or better done overseas in the international arena, and I think that is an important facet of our research program.

Chairman Pepper. You are working in collaboration with the United Nations or otherwise?

Dr. Brown. With the U.N., the World Health Organization, and other bodies, specifically for example, going to places like India where you have chronic drug usage, working collaboratively even with our chapter 480 funding. In the last year I have endeavored to step up our use of these funds that are already available to increase our research endeavor at no additional cost to us, so to speak.

Chairman Pepper. That does not come out of your appropriation? That is chapter 480 funds?

Dr. Brown. Right; but the other possibilities in overseas research; for example, in identifying chronic use of, say, amphetamines; to go to places where this has perhaps happened more than has happened here. This is analogous to what we are trying to do with marihuana. The foreign category of research endeavors is another important lead.

There is one other research responsibility that I would like to put on the table, so to speak, which is, that as bad as the problem is, we have to anticipate the problems that are coming on us very rapidly, by which I mean, with the drug industry and science producing new drugs, just to stay abreast of screening those drugs with abuse potential, to have a so-called early warning system to know which drugs are not going to be dangerous so that we can perhaps put them in the right schedule or alert the medical profession—we need increased capacity to do this kind of anticipatory and preventive work. That is another unsexy, if I may use the term, area and yet terribly important area where research is needed.

Chairman Pepper. Doctor, we have not gone into the question as to whether there should be any limitation on the power of anybody to put on the market in this country something that has a very large abuse potential, even if it has desirable attributes. A good many things would come into that category.

Dr. Brown. That is correct, but I think the issue then gets to be a sensible, responsible weighing of the assets and liabilities or the costs and benefits. If one is dealing with a disease like leukemia, very powerful drugs with terrible side effects are used, yet benefiting 90 percent of the children at the cost of 10 percent serious side effects seems well worth it. So, this issue of having very potent medicines or drugs for serious diseases is one that has been with us for a long time. I think it is an approachable problem.

Chairman Pepper. What facilities for research do you have in your own agency?

Dr. Brown. I mentioned the two primary ones. These are the Lexington Clinical Research Center, particularly the Addiction Research Center that is part of that facility, and the NIH-based National Institute of Mental Health intramural laboratories.

Chairman Pepper. How many people who are capable of carrying on research in promising lead drugs for treating heroin addiction do you have in NIMH?

Dr. Brown. I would be glad to provide specific figures on the personnel at Lexington and at the NIMH intramural activity.

(The information referred to follows:)

At the Addiction Research Center, the NIMH facility for carrying out intramural research in the area of drug abuse, there are 23 professionals, including four consultants, capable of conducting research on promising lead drugs for treating heroin addiction. These professionals are assisted by a supportive staff of 32 technical and clerical personnel.

Chairman Pepper. But at Lexington it is more clinical in character; is it not?

Dr. Brown. Yes, sir, and Dr. Martin in his presentation, detailed very specifically, if I remember, six physicians and seven Ph. D. scientists and supporting personnel. He gave rather exact figures. I think he was being modest because those small amounts of the people have produced a tremendous good for the Nation.

Chairman Pepper. Now, what I am getting at is this. We had witnesses on the third day of these hearings who told us about a drug that a doctor in New York had developed. It is being used experimentally in the State of New York and the doctor who testified before us thought it had great promise. It has not been approved yet by the Food and Drug Administration. He said a little vial of it, that cost a dollar or less, would be enough to treat two people for a week, at the end of which time, the craving of the body for more heroin would be eliminated.

Well, it would be phenomenal if we could develop something like that.

Now, supposing somebody does come along, some doctors, some researchers or promoters, and say, we have got something here we want you to take a look at. We want you to see if you can develop it, see whether it has any potential or not.

Now, what would your facilities be, what would your abilities be to take a promising drug like that in your own shop, as it were, and develop it, see if it is capable of being developed into a desirable drug?

Dr. Brown. We would have a modest capacity to handle that kind of situation and, to tell the truth, we would be very cautious about people who present, you know, the instant miracle thing that will do something.

Our first approach is to say on what basis do you say that? What is the data you have? What is the scientific background? What is the nature of the drug? What of its chemical analysis? Have you tried it on animals or patients?

Just because a person has deep conviction and sincerity about the promise of a drug, we have learned to be skeptical in our business as you have in yours, and we would assess very carefully. If it looked very promising on its own basis we would encourage that person to submit a research grant from a university, from a college, from a clinic or any other facilities, even as a private investigator.

We might in some cases ask Dr. Martin to look into the drug. He might think it worthy of testing on animals and otherwise. Our capacity would be cautious and modest to handle such a situation.

Chairman Pepper. Well, now, Doctor, that concerns me a little bit because I realize that that is the normal and the natural approach. On the other hand, if an epidemic were beginning to sweep over this country that was going to take a lot of lives and cost the country a great deal and somebody came up with a potential antidote for that epidemic, a blockage for that epidemic, and the national interest was very seriously threatened, and I was a Member of Congress or I was speaking for the Congress, I would want action that was actuated by a sense of emergency, a search for it, not just saying, well, you have not proved to us yet that that will do any good. Go on and get up all your papers and do your homework and bring it in and we will take a look at it. If you are looking for something to block this national epidemic, I would want an approach other than business as usual.

Let me tell you a little story. President Roosevelt once told me, when he was Assistant Secretary of the Navy, they needed something to ward off the German submarines and the Navy had not come up with anything that was that attractive and he or somebody came up with the idea, well, let us advertise that we are looking for people that have ideas as to how to protect our ships against submarines, and they brought them all up to New London and got rather a large dormitory or something and put all these fellows that showed up who thought they had something, they put them in this dormitory and he said there were a lot of amusing aspects of it. Each one of them chinked up the keyhole and cracks and everything so nobody could spy on what he was doing, and they all went to work.

He said, believe it or not, in a few months they had come up with something that the Navy could take and develop and it was the best thing they had to ward off the submarine and that is how it started. The ingenuity of all these people was encouraged and they let them come up with what they had to offer and then the technicians of the

Navy took and developed the best leads and they came up with something.

Now, that is what I am talking about. The curiosity or openmindedness on the part of the Government, not you but the Government, that is out looking for a fellow with a good idea and wants to help him develop it, see if it has got any potential, because we have not come very far, we have not gotten beyond primitive yet in this field.

So, that is the reason that we are perhaps embarrassing you by suggesting that we would like to have you submit to us in response to our request an ideal budget if we were the Appropriations Committee of the House of Representative and asked you, with your knowledge of this problem and the gravity of it and the knowledge you have of the potentials in the field of research what would you offer as an ideal budget for NIMH.

Would you be embarrassed to submit in response to our request what you think in the national interest, if you were just asking for what you thought might wisely be used, an ideal budget for this field?

Dr. BROWN. It is within your prerogatives to ask for such a budget and it is in our responsibilities to respond thoughtfully.

Chairman PEPPER. We would request you to do it and we do not want you to feel any sense of embarrassemnt in doing it because we are authorized by the House of Representatives to explore this subject to the fullest and we want to help the House by getting you to help us with a recommendation.

Would you consider that, Doctor, and submit to us what you think you could wisely use?

Dr. BROWN. Yes, sir. And like Franklin Delano Roosevelt, in this problem we are all at sea, it is a stormy sea, and we need to get into the deep waters of submarines to find new and creative answers.

(For information concerning the budget discussed above, see material received for the record, p. 465.)

Chairman PEPPER. Mr. Rangel?

Mr. RANGEL. Thank you, Mr. Chairman. I have a group that is interested not only in the drug addiction problem, but also the survival of communities, and if my colleagues would yield, I certainly would appreciate it. Thank you.

Doctor, I suppose the Chair has indicated the general thrust of the feeling of this committee and in studying some of the other activities which your organization has taken on, it seems abundantly clear that the recent attack against narcotic addiction as declared by the President has not yet reached the point that your institution would feel the vibrations, and I can understand your reluctance to come before legislative bodies, especially being appointed by the Executive, in making positive and affirmative requests for funding.

However, in view of your own admission of the primitive state of affairs that exists in the area of drug addiction, it seems to me that most of those who have testified before this committee have restricted their concern to the methadone program, notwithstanding the fact that even the head of FDA, who you heard testify this morning, declared that they have no jurisdiction over the activities of physicians that are misusing this drug and, in fact, creating methadone addicts in communities where they were not addicted to anything.

In addition to that, there seems to be some reluctance on the part of all those who have testified from a variety of agencies to suggest that the American Medical Association assume some of the responsibility in this area, which allows me to believe that the politics that are being considered involve the pharmaceutical houses, which again it has been testified, have not taken the leadership in terms of substitutive drugs. Now, you have the prime responsibility in the area of research and many of your programs are methadone related. There seems to be some contradiction between your testimony and that which was given earlier as to the economic and ethnic composition of those who are being studied by your agency as opposed to those groups that allegedly are being studied, investigated, by the FDA.

Dr. BROWN. Yes. I was aware and sensitive to that issue as it came out in your discussion.

Mr. RANGEL. What bothers me is that I think it is really unfair to the American people to listen to witness after witness testify as to what aspects of research they are involved in. I think it is repugnant to the belief and credibility of any administration when a President can allege a war is going to be declared when we have before us today a variety of agencies all of whom are now for the first time becoming involved in research. We have the law enforcement agencies, we have the Federal Bureau of Narcotics and Dangerous Drugs, we have HUD, we have Model Cities, we have the Department of Defense as it relates to the military. Of course, you have heard testimony from FDA.

I do not know how many agencies are now involved in some new, and some of them superficial, research areas. But I think what the Chair was asking and what I am begging is, is your agency willing to assume the responsibility of having a centralized research center for the purposes of finding some cures to drug addiction?

Dr. BROWN. The answer to that is an unequivocal "Yes" and we would hope that the Clinical Research Center at Lexington would move in that direction and we are planning toward that. We have been moving toward having an adequate addiction research center for years and hopeful of achieving eminence and contributions in this area.

Mr. RANGEL. But is it outside of your professional realm to suggest to this committee that you assume the responsibility with all of those that are now getting into research? I mean, how do you explain that even though for 7 years a drug has been used in the United States of America, the FDA has not declared that this drug is safe? You have the prime responsibility to determine research in this area, and now State by State, city by city are asking for expansion of the program without restrictions on the physician who is misusing the drugs, and yet there is no word heard from your agency in terms of suggestions to the Department of Justice. One of my colleagues asked would you recommend to the Department of Justice restriction, and he reluctantly said that he would not.

Dr. BROWN. You are asking terribly important and difficult questions and I make it a practice not to be unresponsive but to try to be honestly responsive. The reason for the situation is because the whole country has become aware of the seriousness of this problem. It is not only that each new agency is becoming involved but organization after organization from the American Legion to Women's Liberation is becoming aware of the problem. Committee after committee is becoming aware.

Mr. RANGEL. Is there any disease, any ailment of a national import, that is being treated like this by the U.S. Government, in such a haphazard, piecemeal way?

Dr. BROWN. I do not feel I can answer that question. I think this particular ailment, to use your term, Mr. Rangel, is not the same ailment, as much as we say it is a disease, as, say, cancer, complex as it is.

Mr. RANGEL. One of the major factors why it is not is because the larger number of the group historically has been at the lower economic level.

Dr. BROWN. Exactly, and that is exactly the point I was going to make, that this is an "ailment" that has to do with different cultural groups, different economic groups, different racial groups. As it has become more prevalent, the ailment, as I say, of drug abuse has been moving into middle class and higher socioeconomic areas, we have begun to see a response and I have often said that this particular situation, when it was limited to the inner cities, to the ghettos, to the blacks and the chicanos, was not getting adequate attention. In fact, we are getting an interesting development, I think, which may be the right response for the wrong reason, but nevertheless, as the "ailment," the drug abuse problem, has become more prevalent and epidemic, we may see assistance, help, community treatment, clinics and research for the most harmed group, the inner city resident and the blacks, if you follow the reasoning.

Mr. RANGEL. We are begging direction from your particular profession and I do not know whether it is proper to suggest that we go into executive session because I do not recognize the sensitivity and politics that are involved here but there is no question in my mind that we will be coming to you, or I personally from time to time, for recommendations as to how the Nation's population best could be served and in that direction, I might say that with the return of the fighting men from Vietnam coming home addicted, and some of the people being mugged, I agree with you, we should expect a lot of support from Congress and other sectors of the country.

Chairman PEPPER. Mr. Brasco.

Mr. BRASCO. Dr. Brown, I think that while we are talking about what further research and developments can be had in the future, I would like to discuss, as my colleague Mr. Rangel discussed, some of the immediate problems.

I do not profess to be a great expert in the area but there are some things that bother me. I am an attorney by occupation and I practiced criminal law for some 10 years, 5 with legal aid society and then 5 in the district attorney's office in Brooklyn, N.Y., so that I have had an opportunity to become familiar with the problem.

I have seen people for a number of years go to Lexington and come back. I have seen people go to Fort Worth, Tex., and come back, all in a revolving-door setting. I have seen people go to Synanon, Day Top, Phoenix House, your drug-free environments, and all come back.

However, I have been getting a number of people in my area that have been asking to become involved in the methadone program and I think that one of the things that we have to recognize in dealing with the addict is having a program that they themselves, as individuals, can fit into.

I had one young man in particular who came to me and wanted to get into a methadone program and he said he was using $100 a day. You know, and I know, he was not working for that. And if you start figuring, he is paying $35,000 plus a year for drugs and knowing something about the value of property that is stolen, you find out that an individual gets, if he is lucky, maybe 10 percent of the value that he steals.

Now, this is a guy who, to support that habit, has to steal upward of $300,000 a year. How many muggings? Stickups? Burglaries? This is a one-man crime wave.

He went into that program. He came back several weeks later with his bottles of orange juice with the methadone mixed in it. He is married now and working and not a social or criminal problem.

There are a number of people that want to get a crack at using methadone and the thing that I think is shocking here is that while we are doing the further research, we have only 30,000 people involved in the methadone program. It has been around for 7 years.

I kind of suspect, as you indicate, that it is the best opportunity we have. It would seem to me that the only reason why it has not expanded to a greater extent so that more people can use it is the business of the FDA approving it and I would say that there is over and above and beyond what I consider to be tolerable risks that you spoke about in leukemia, 90 percent all right and maybe 10 percent the problem, I think that we have a tolerable risk situation here but assuming we do not, somebody better make up their minds as to whether or not the 30,000 people who are taking it are in danger or is this the real thing. I am wondering, could we expect that there are going to be some hard-core determinations made very soon, after 7 years, as to whether or not this is a legitimate approach?

It is more like a speech than a question, but this is something that has been bothering me throughout these hearings and I, just for the life of me, do not understand why we do not move forward with it.

Now, what is your best estimate of this?

Dr. Brown. Well, one useful suggestion in essence is just to perhaps further formalize that which you are doing through the hearing process and to ask for a coordinated report on the efficacy of methadone from HEW or from the Government in some way, so that this is a suggestion I am making as a way of, at least, seeing what the state of the opinion is if not the state of the art, and that is just perhaps farther than I should go but it is a well-intentioned suggestion for at least putting together the answers that keep going on and on.

Now, my best estimate of methadone, switching into a different frame of reference, is that from knowledge, and again this is secondary knowledge, not primary knowledge, but considerable experience at evaluating secondary knowledge, from Dr. Dupont's program in the District and Dr. Jaffe's program and Drs. Nyswander and Dole and following the reports very carefully and reading packs of data, my estimate is that methadone would be a useful treatment with dramatic crime reducing effects for perhaps as much as a quarter to a third of the heroin addict population, and this is my estimate of its value.

There are, however—as dramatic and important as that sounds, because we are talking about a billion dollars, we are not talking about a small amount of even crime reduction if you want to take that—other issues which are sincerely and deeply held, and not by people who do not want crime to reduce. For example, in the process of this treatment being given, how many people are created to be methadone addits who were not addicts at all? This is a terribly sensitive and important issue.

Mr. Brasco. I know, but I suspect, Doctor, that is a strawman. It would seem to me that anytime you are dealing with drugs of any sort, you are talking about risks. I remember when sulfa came out, a younger brother of mine was almost killed by a doctor who was continually giving him sulfa for some kidney ailment when he should not have been having sulfa, apparently.

So, I do not know why we just cannot develop a procedure to find out very simply before a man enters the program that he is an addict so we do not get somebody just waltzing in there to become an addict and I think it is a strawman because the people are out on the streets getting the drugs with the greatest of ease and more and more addicts are involved. What we would really be doing is talking about a significant reduction in crime and what we are really doing is talking about an opportunity for people to lead somewhat of a normal life. I think that we ought to be able to give the American public the opportunity for this solution because I think that these are tolerable risks and I am wondering whether or not you think, in dealing with methadone, from reading all of the reports and making the studies, that this is an area where we have approached tolerable risks, assuming the great proportion of the drug problem that we have today.

Dr. Brown. I would say that what I would like to see done along the lines is being done in part here in the District. I would like to see in the District, for example, a major massive pilot experiment where as large a proportion of the heroin addicts as is feasible or could be attracted to it, encouraged to use it under safeguards, and then to have a careful evaluation study. Dr. Dupont's program is approaching that here, and my figures are not exact, but plans are to move from 2,000 patients to 4,000 or 5,000 at the end of the next year and funds are being made available to him from NIMH and LEAA and a variety of sources.

Dr. Dupont's estimates are that there are 16,800 addicts and, in truth, I think that he is somewhat low in his judgment. I would like to see what happens to crime statistics in one major community if we make methadone available to closer to 10,000 addicts, as many as we could possibly see under such a controlled experiment. I think we are ready for that kind of massive experiment. I do not know if we are ready for that kind of massive experiment nationwide.

Mr. Brasco. Let me just digress for one moment, Doctor, and I will be finished. Talking about the drug companies, I get the distinct feeling they sing that song "Your Lips Tell Me No, No, But There Is Yes, Yes, in Your Eyes" in reverse. I would like to ask you a very straightforward question. Can you tell me if you think it is in their best interests not, and I am talking about financially now, not to engage—as Dr. Martin indicated, they are not doing very much—not to engage in attempting to find some substance that is useful in the war on drugs? By that I mean, very simply, they seem to me to be producing more and more drugs every day. You just turn on a commercial and they have got Nytol to go to sleep, something to wake up, something to make you smile in the morning, and it just seems to me that when they get in that area, they are going to have to make hard determinations maybe that they have been too busy producing too many drugs that are capable of being abused without any real need for them, and maybe it is not in their best financial interests to put their scientific people and research divisions to work in terms of helping to find a cure of this problem.

Dr. Brown. In terms of clear cut, simple profit motive, I think this is what Dr. Martin alluded to. It is not clearly going to be a major profitmaker to develop a drug here and if the major motivation is profitmaking, this is not a high profit sort of thing.

On the other hand, you brought up an issue that I am going to piggyback on, which is, that unless we look at the heroin problem—which is the hard-core problem in the drug field—in terms of the whole drug-using culture we are not seeing the whole picture. There are some very startling things happening in our society. Our last figures showed that close to 20 percent of all the prescriptions in this country are for mind-altering drugs, mostly antianxiety and antidepressant agents, and that is up from 5 percent just 5 years ago and the curve is very dramatically up and if you add the over-the-counter drugs to the prescription drugs, you are moving forward to a period maybe 3 years from now, maybe 8 years, I am not sure, in the foreseeable future where half the drugs being used will be for mind-altering or mood-altering purposes and that is a major massive phenomena in the context of which you have to see the drug problem.

The interrelationship is mighty complex.

Mr. Brasco. There may be a question of profit for them and if this is outside of your realm, I guess it is for the Congress, but I think we ought to put our foot down and tell them they had better get out of this thing no matter how much profit there is for them because it is really affecting the American public.

The last question. One thing that always concerned me, Doctor, and I am wondering if you are doing any research on the problem. It is a known fact that a woman who is pregnant and is an addict, and gives birth to a child during that stage, he is born as an addict, so to speak.

Dr. Brown. Yes.

Mr. Brasco. Now, what do we do in that particular situation, because I think that is something that has been given very little attention and you hear it every once in a while.

Dr. Brown. Yes. We have a few studies. For many years, two or three decades, we have been aware of the new born child addicted to morphine and heroin and who has to be treated very carefully or pediatrically having to be withdrawn during the first 2 weeks in life which is always a dangerous period.

What one would do there is to alert the medical, pediatric, and obstetrical profession to this particular problem. Now, that is very difficult to do when you have a big city hospital which has two-thirds of its babies delivered when the mother has had no prior medical attention and the doctors hardly have time to diagnose the fact that the mother is an addict before the baby is born, and then the actual facilities for caring for the baby over the next day or two or week are inadequate from the medical pediatric point of view.

Mr. BRASCO. What you are saying is we are really doing nothing in that area.

Dr. BROWN. Practically speaking, I think aside from being aware of it, it is not being handled in any big league way which is what you are implying.

Mr. BRASCO. There is another area, I guess that your Agency, with the right resources, can get deeper into.

Dr. BROWN. Again, this is one where I would like to be able to provide for the record, the state of the art again in terms of this particular problem you are raising, which is heartrending.

(The following information was received from Dr. Brown for the record:)

It has been known for many years that neonates born to opiate addicted mothers could exhibit addiction and withdrawal symptoms but the full significance of this phenomenon has not been determined.

Some of the early studies report rather high mortality rates for these infants but more recent reports have shown either low or no mortality in those instances where the syndrome was recognized and adequately treated. A complication in understanding the role of the opiate addiction in infant mortality and morbidity comes from the fact that there is a high incidence of prematurity and low birth weight found in these infants. These conditions place the child in a high risk group whether the mother has been addicted or not. Although these two conditions are frequently found in babies born to opiate addicted mothers, a causal connection cannot be drawn at this time because many of these mothers also have malnutrition, poor standards of self care, inadequate prenatal care and come from a low socio-economic background. All of these factors in varying degrees have independently been associated with low birth weight and increased incidence of neonatal complications in populations of nonaddicted mothers.

Generally, if the neonatal addiction is recognized and adequately treated it does not appear to present a severe problem. Symptoms found in the newborn such as tremors, shrill cry, hyper-irritability, myoclonic jerks, and gastrointestinal disturbances are not specific for the withdrawal syndrome. Therefore, it is important for the physician to be aware of the possibility of this condition and to maintain a high index of suspicion particularly in the case of mothers who come from groups that have a high incidence of opiate addiction.

There seems to be no standard treatment regimen at present, but the following drugs appear to be commonly used: phenobarbital, chlorpromazine, Demerol, morphine, methadone, and paregoric. Generally morphine, methadone, and Demerol are used only in more severe cases which do not respond to sedation with phenobarbital or chlorpromazine or treatment with paregoric. In addition, supportive measures may be important, such as intravenous fluids in the case of gastrointestinal disturbances.

The effect of neonatal opiate addiction on long-term physical, personality, and cognitive development is unknown. The presence of other factors such as low birth weight and prematurity in many of these children may affect their development, making it very difficult to assess the role, if any, of the neonatal addiction in long term growth and development.

With the increased use of methadone treatment programs for addicts it has become more important to investigate the incidence and severity of neonatal problems in methadone treated mothers. Early studies have reported that when the mother has been detoxified with methadone prior to delivery, the infants show fewer signs of withdrawal. Infants of mothers on methadone maintenance seem to have fewer signs of addiction. As the number of patients treated in methadone programs increases and the period of observation lengthens, further opportunity will be provided to assess the effects of methodone on infants born to addicted mothers.

Mr. BRASCO. I do not want to take all the time. I just want to thank you. I concur with the chairman and my colleagues and I think what we are basically saying, in order to solve this problem, notwithstanding the reluctance of the agency heads who are appointed by the Executive to put themselves in an embarrassing situation. However, the problem is of such magnitude that somebody's feet have to be to the fire and as the chairman said, let us give it to the Congress. If you tell us what you need and what you want, we will put our feet to the fire, so to speak, in an effort to come up with some viable solutions to this problem.

Thank you.

Chairman PEPPER. Mr. Steiger.

Mr. STEIGER. Yes, Mr. Chairman, thank you.

Doctor, do you know of any drug that in your experience or to your knowledge, was tested over a period in excess of 5 years on over 1,000 people without receiving some kind of a judgment as to its efficacy, safety, et cetera, that was within the purview of FDA and your organization?

Dr. BROWN. Not off the top of my head. I may say, although it might not be what you are looking for in the way of an answer, several drugs oral antidiabetics used for as long as 10 years, that might not be as effective as injectable ones, and there are many examples of drugs in use by tens of thousands of people where the real impact, its efficacy, did not become clear even though organized research efforts were made toward it. In that sense I do not think methadone stands alone, you know, in terms of being used for tens of thousands of people for over 5 years, without having the answers to questions of effectiveness. It is not that much a loner as perhaps you would imply.

Mr. STEIGER. Are you saying that the oral diabetic drugs were in this state of limbo for 10 years and used on thousands of people or were approved and then 10 years later were found to be not as efficacious as was originally thought to be?

Dr. BROWN. I am perhaps leading.

Mr. STEIGER. I see what you are saying.

Dr. BROWN. Yes.

Mr. STEIGER. Mistakes have been made as to the efficacy of drugs.

Dr. BROWN. Yes. There have been many drugs that have been approved as safe and efficacious with research over a 10-year period. Another example is that well-known one, the birth control pills, where the answers are still being sought as to their long-term impact when used over a period of 5 or 10 years.

Mr. STEIGER. But none of these failed to receive the FDA approval over this period of time.

Dr. BROWN. As far as I know, they must have received the FDA approval.

Mr. STEIGER. In your own mind now, we have got somewhere between 20,000 and 30,000 people over a period of something in excess of 5 years. We have been exposed to this. We have gone through the animal processes and whatever else is required. Now you are talking about upping the ante to another 4,000 or 5,000.

How many people are we going to have to try this on and for how long before somebody is willing to say it is OK or it is not OK? I find it very difficult to accept your rationale up to now.

Dr. BROWN. The answer that I give to a question like that, and I think both your question and my answer are sincere in trying to cope with the problem, not evading the problem, is that the cost of research as General Sarnoff said, is the cost of going from here to there. I think until we have matched patients to compare with methadone-treated patients we will not have the results we need.

I think one could get good answers in a year or two and I think there is a promise that within the next year that we will have more definitive answers about the efficacy of methadone.

Mr. STEIGER. By definitive answers I get the feeling you are talking about crime figures. With all due respect, it seems to me that your responsibility is to see, one, that it is safe, and, two, that it apparently will work under the conditions which you prescribe.

Now you tell me it is going to take you another year or two to make that judgment. Are you waiting to make a judgment which includes the crime statistics, or are you only concerned with the physiological aspects of this?

Dr. BROWN. From my perspective—again, it is in our opening statement—that one must look at the physiology, whether or not the person is working, whether he gives up antisocial behavior or not, whether he is motivated enough to educate himself, whether he lives with his family, the nature of his mental health, et cetera. All of these are very important criteria. We are not limited to just whether or not it has some bad effects on the body or his heart goes bad after 4 years. We are concerned with the whole range. I do not like to see it when the antisocial behavior is the only criteria. I do not think that is adequate but I think it is terribly important.

Mr. STEIGER. You see, Doctor, our problem is that this is not an inner-city problem any longer. It is obvious our concern is because now it is our ox that is being gored. I have got a problem in Flagstaff, Ariz., and you never heard of Flagstaff, Ariz., but the point is that I honestly believe after listening to weeks of testimony from people as sincere as yourself, the normal caution that goes with, one, the scientists; two, the bureaucratic administrator; and three, anybody in the public light, this is working to the detriment of the Nation in this instance. I think the most valid evaluation of methadone was made by yourself, that it is probably effective in a quarter to a third of the cases of addiction.

Great. All right. Draw some guidelines. Tell us to go use it because what is happening is you are creating a black market by some doctors who are not motivated by the profit motive, and by others who are clearly unscrupulous. You are creating a new artificial illegal situation and you are doing it because everybody points to you. The buck seems to always end up in your lap. Whether it is there properly or not, it seems to me the time has come to stop saying let us wait and see.

It is my firm belief that you have the statutory authority to make this judgment now. If I am wrong, I hope you will correct me. And I just think that you are seriously shirking your responsibility if indeed this is only valid in 10 percent of the cases because we have nowhere else to go at this point and we are playing games with Lexington. We are playing games with the well-intentioned but technically inadequate people who are attempting to solve the problem.

I have got a guy who plays Beethoven in stereo as a means of treating addicts. I should not say that. It may work. But the point is that this is the extent to which communities are grasping for this thing. And I know that you know all these things and yet I wonder at your ability to say, well, we are going to put another 4,000 here in the District on it and see what happens, because I can tell you what is going to happen. You are going to get a 20-percent increase in addiction across the United States this next year without it, period, and you may still get that 20-percent increase, but at least you will be controlling part of it if we are in a situation in which we are dispensing it under prescribed regulations.

One other point. If you had a drug that had been used on 1,700 people, recommended by two or three acceptable medical authorities, and FDA said it had never been tried on dogs and cats and rats and mice or whatever they have got to do, would you have the budgetary—and assuming it passed your superficial criteria—could you find the rats and mice and whatever to test it on? I am talking about Perse, which, I understand, you are aware of and to us laymen it sounds wonderful and I am willing to concede that it may be as bad as Beethoven, but the point is that here we are talking about some monkeys and some dogs and some rats and the fellow who has it has not got the monkeys and dogs and rats.

Can you give it to monkeys, dogs, and rats to the point that the FDA can at least give out an IND number on the thing?

Dr. Brown. Yes. We could take the drug and do work on it.

Mr. Steiger. Would you?

Dr. Brown. After we went through the painful process that Chairman Pepper said that he was not in good spirits with, of looking carefully at the papers and seeing whether it was worth doing with the limited capacities we have.

Mr. Steiger. All right. If you will stipulate that 1,700 people have taken this thing over a year, that there are—we will give you the testimony. I am sure the chairman will be happy to provide it.

Dr. Brown. We would be glad to explore it in depth and give you our best answer.

Mr. Steiger. The point is that you are talking about help not only for the addict but for people who drink too much. You could have an impact that would fairly exceed the addiction problem. You could be heroes nationally, not just to the addict population.

The point is that we do not understand all of your problems obviously, and we do not make any pretense that we do, but we have some very specific things here that it seems to us that need to be done; you are the people who have to accomplish them and you are not accomplishing them.

Now, that is the way it looks to us. That may be very unfair but there it is, at least to me. I cannot speak for the balance of my colleagues, but I think you should be aware of this and it should not be just a polite situation.

Would you respond to that, Doctor? Would you give us a commitment to look into Perse? I think that would make us feel good.

Dr. Brown. We have already and we will be glad to do a very thorough evaluation and get an answer back to you.

Mr. Steiger. Tell me, in your preliminary examination you apparently have not been impressed with it; is that correct?

Dr. Brown. Mr. Besteman has been involved directly.

Mr. BESTEMAN. The man on my staff who is a pharmacologist has been scheduled twice to meet with Dr. Revici and the FDA in the Parklawn building and two meetings have been canceled. We have asked for written material and we have pursued it from our side. It is a matter of waiting for the data to come to us but we are in the position that if the claims are substantiated, this is something we cannot ignore and we have actively gone after the data. We do not have it.

I understand there has been some illness involved and this has been one of the problems.

Mr. STEIGER. Doctor, are you aware that we had testimony here from two physicians who have used this?

Mr. BESTEMAN. Yes.

Mr. STEIGER. Would not their experience be of some value to you in evaluating this?

Mr. BESTEMAN. Yes, it would be; but we have to start even more basically than that because they are talking about the drug and once you start at that level and work forward—you do not start from testimonials and work backward. There are many things that clinicians, and I have been one, believe in.

Mr. STEIGER. Oh, I know.

Mr. BESTEMAN. And they even work because I believe in them and I get the people who work with me to believe in them and we are both happier, but then the next fellow down the block cannot do that, and this information from the clinical setting alone is not enough.

Dr. BROWN. What we are saying is we have pursued and made ourselves available and I think Commissioner Edwards said the same thing. We are ready, willing, and aware.

Mr. STEIGER. OK. I will just explain this to you, then. We are well aware that Dr. Revici is not the conventional physician, scientist, et cetera. Fine. And what he has may or may not be of value. But on the other hand, while it has not been tried on the rats and mice, there are 1,700 people who have taken it and they are fine, or better than they were.

It seems to me that we have an obligation here that you have got $17,700,000 to spend and you are the people—it seems to me that you have to be more aggressive than simply establishing an appointment that the guy does not keep and then if he does not keep it, ergo, your responsibility is ended. It may be protocolwise or professionally that is all you should do but that is not going to help us, and again, we are in a situation where the barn is burning and everybody is standing around explaining why they cannot put out the fire, picking a few dandelions off the lawn but the barn in the meantime is burning down.

Dr. BROWN. I think we have been more than just waiting. We have asked for the materials. Now, we really are at it. You must understand that whenever the barn seems to be burning, there is this feeling—let me go back to an early implication of your question. There was similar feeling, I think, 7 or 8 years ago that has occurred again about cancer, a terrible thing. Once you get involved in the cancer situation it is heartrending. It hits almost every family. A large program to screen every possible drug that might have an effect on cancer was approached. Everything that might help ought to be screened through thousands and millions of rats and mice. That approach tried and did not pay off.

We could go into the drug area and say this is so important we had better try leads of any sort and have that kind of desperate approach.

I do not think it is wise. So, that we have had experience with a sense of urgency and people dying. You know how many people die of cancer each year and we find that we must proceed somewhat thoughtfully clinically. If you had the real feeling that we just were pushing off the man I think you would be right.

One of the problems we feel is most interesting and difficult is that many of the most important research advances would have come from men who could not get a research grant from us because it would have been such an unconventional idea. It is very difficult, mystifying. How do you deal with the problem that it quite often is the unconventional idea? We do not yet have the mechanism to see which ones of dozens and hundreds of thousands of unconventional ideas are going to be the payoff. We do know, however, from the nature of people who have unconventional ideas that pay off, they all were terribly persistent. They all kept at it. They all bootlegged, bootstrapped their research. They got money from elsewhere. People who are creative with an unconventional idea do not give up easily even if they cannot get a research grant.

Mr. Brasco. Would the gentleman yield? I think in this particular case this is what Dr. Revici is doing, because if he has some 1,700 people that have had contact with this drug of his in a program, and if he is obviously not getting any help from us, then he is going out and doing it on his own.

But the real observation I wanted to make, Doctor, is this. It would seem to me from the testimony that I hear in connection with all the research that is going on, and with the great difficulty of the different agencies, and I am not talking about you now, but you have been here for some of the testimony, to recall what they are doing in research, what their budgets are and who is doing what and to whom, so to speak, might it be a better approach in line with your own testimony that you have a number of obligations, leukemia being one, several of the others—cancer being another, and there are several others, Parkinson's disease that you mentioned—that should we not have under your jurisdiction maybe a separate division that does not have to divide its resources, that can just zero in on this one particular problem, so that we can have a unified concentrated effort under one roof, and we can always be abreast of what is going on and maybe it might be wise in your approach to consider it.

Dr. Brown. We will be glad to have some organizational observations as to the budget, if you so desire, if you couch the question to include that.

Mr. Brasco. I think that would be most helpful.

Thank you.

Mr. Steiger. I have no further questions, Mr. Chairman.

Chairman Pepper. Just before my colleague, Mr. Mann, I would just like to say this for the record. I understand that Dr. Revici has been ill and that is the reason that he has not kept the appointments.

Dr. Brown. Yes; that is what he said.

Chairman Pepper. I am sure we are very much interested in your thoroughly examining Perse to see whether it has any potential or not.

Mr. Mann?

Mr. Mann. No questions, Mr. Chairman.

Chairman Pepper. Doctor, we are interested in two things. We have already been over the research aspects of it. We want to develop the best possible drugs for use in combating heroin addiction.

Now, the other thing is to establish the necessary treatment and rehabilitation facilities that deal with the heroin addicts in the country.

When we held hearings in San Francisco in 1969, one of the doctors, Dr. Roger Smith, who was in charge of a clinic in Haight-Ashbury, as I recall, testified before our committee that the thing he thought most desirable was to establish a clinic in each community, in each area of a city. It need not be large and need not be public. It could be an approved private clinic. But to establish a treatment and rehabilitation facility in almost every community where there was a drug problem so as to make it easily accessible to the drug addict.

Now, what we would like to do is to get a blueprint from somebody who could give us one of what would be the desirable pattern for treatment and rehabilitation facilities in this country if we were trying to set up what was necessary and desirable in the public interest.

Could you, or any of the gentlemen associated with you, tell us what facilities are now available and then tell us what you think would be desirable if we were adequately to meet the problem?

Dr. Brown. Yes. We would be glad to develop such a thoughtful document that would lay out a blueprint. I do think the fact that available health resources, and I am using the most general term, ought to be available in every community for the drug problem—this is clearly a beginning. I start from that premise that one ought to be able to get help somewhere near home. This has been our blueprint with considerable effectiveness in the mental health area, generally, with the community mental health centers. We hope to have a network of 2,000 centers in every local community. So far we have such centers covering about a quarter of the country and we made considerable progress with many a hard-nosed criteria. I do think a parallel or analogous network of services is needed in the drug area.

Chairman Pepper. That sounds like a good analogy. That is what we are looking for, an adequate program.

As I understand it now, how many treatment and rehabilitation programs are there, so far as you know, in the country today?

Dr. Brown. We know those that we have funded, which is roughly 23 such community centers throughout the country. We do know of perhaps 100 additional treatment centers that might range from free clinics like the one in Haight-Ashbury, drop-in centers and other partial therapeutic houses, halfway houses, bits and pieces as we call them, as important as they are.

Chairman Pepper. If you are funding 23, that is less than one for half of the States of the country. Now, in Miami, in my home, the people there who have been trying to provide treatment and rehabilitation facilities have had a terrible ordeal to get the money. In one instance the Bishop of the Diocese of Miami, the Catholic Church, provided the only money that was available for a methadone clinic. It was operated by a Dr. Ben Shepard. You know about that. Then there is one now operated by Father O'Sullivan. Then there is another one up in North Miami, I believe it is, and then there was some sort of a program that was put into Jackson Memorial Hospital. But the people who have been struggling with the problems just have not had the money. The county has not had the money. The cities have not had the money. They have not been able to raise enough by charity. They got a little—Self-Help, I know, got a little money, $20,000 I believe—through the State from the Federal program. But other communities in the country must be having the same problem. My colleagues probably have similar problems in their States. With all the money the State of New York has put up, I dare say you do not have nearly enough and in other States you probably have the same problem. You do not have enough facilities.

Mr. Brasco. No. And if I might, Doctor, I do not know whether or not you were trying to make a point that went over our heads but it is something that happens all the time when you talk about local centers, and I think that is going to be basically our problem because I found this in my area as well as every other area that people say, yes, we have a problem, yes, we want somebody to do something about it, but when it comes time to put up a local drug rehabilitation center, they say put it in somebody else's neighborhood.

Is that what you were driving at? If so, I think that you are right. This is our problem and we have got to sell it and we will. What we want is that blueprint because we just cannot go any more the way we are.

Dr. Brown. I think that is fair.

Chairman Pepper. Thank you. We thank you very much. We will look forward to that. Give us a blueprint of what should be the ideal treatment and rehabilitation program for the country.

(The following was received in response to the above request:)

During the hearings, you requested a blueprint and a professional judgment budget in the field of narcotic addiction and drug abuse. As you know, the President has recently announced a significant new initiative and thrust in this area and we are currently assisting the White House Special Action Office in designing a blueprint of a service program for the President. It would, therefore, be inappropriate for me to provide either a blueprint or professional judgment budget to the Committee at this time.

Chairman Pepper. Now, Mr. Perito, did you have any further questions?

Mr. Perito. A couple of questions, Mr. Chairman, if I might.

Dr. Brown, if I understood your testimony correctly before another body, you mentioned that there were no federally assisted treatment and rehabilitation programs for people under the age of 18. Is that correct?

Dr. Brown. I do not recall having said that in those terms, Mr. Perito. You must be referring to some dimension of perhaps the methadone regulations which do not permit treatment under the IND for persons under 18. I think that may be what you are referring to.

Mr. Perito. Do you know of any federally assisted programs where they have a broad multimodality approach for children under the age of 18? In the 23 community-based treatment programs which are supported by Federal funds?

Dr. Brown. Yes. Several of them have programs that treat young adolescents. They may not use methadone which is perhaps specifically what you had in mind, and again, the nature of the question is interesting enough that I would like a chance to respond for the record by saying how many or what proportion of the people in federally assisted programs are under 18. That would give us the sharp question to which we then could try to provide hopefully, a responsive answer.

Mr. PERITO. If you could provide that, it would be very helpful.

Dr. BROWN. Be glad to.

(The information to be provided follows:)

Nineteen percent of individuals being treated under NIMH programs (including NARA and the community programs) are under age 21. (We do not have the exact percentage of such individuals under age 18.)

Under NARA (the Narcotic Addiction Rehabilitation Act of 1966, Titles I and III), 13 percent of all individuals currently being treated are under age 21.

Of those individuals being treated in community-based programs, 21 percent are under age 21. A further breakdown of individuals treated in the community programs indicates that 19 percent of these individuals fall within ages 16–20 and 2 percent are 15 or younger.

Mr. PERITO. Do you have any criteria or are there criteria set up for the treatment of young addicts? Do you know of any?

Dr. BROWN. Not per se. I know that is part of the primitive art of treatment which we are talking about. This gets to be, shall we say, undeveloped, primitive when you get to the young, which is really a quite oppressing and difficult problem.

Mr. PERITO. One of the problems that we have been having in trying to gather together information is statistics on evaluation. Do you know of any statistics or any evaluative study as to the efficacy of the drug-free approach programs insofar as crime reduction is concerned?

Dr. BROWN. Again, we presented in our testimony our experience under the NARA program, including crime statistics. We will in the very near future, within the next few months, be able to take the drug-free versus the methadone, to do the important thing of matching for age, sex, employment, social background, to give definitive answers on that comparative basis as well as the crime, social, educational, and physiological parameters. We are pursuing that as rapidly as we can.

Mr. PERITO. That would be very, very helpful.

Chairman PEPPER. Excuse me just a minute. We would be very much interested in that. Can you give any overall judgments as to whether or not adequate treatment and rehabilitation facilities made available in the communities of the country would effectively, and if so, to what degree, reduce crime? Could you hazard any estimate?

Dr. BROWN. Well, what we could do is in laying out what our best program would be for the total heroin addict population, 250,000, with what we now know about its effectiveness, what impact that would have on the crime rate. We could do the logical steps to give you an answer to that question.

Chairman PEPPER. That is what I am getting at. If we applied the skill and knowledge and substances that we now have available in an adequate degree, what impact would that have, in your best judgment?

Dr. BROWN. We could follow out that thought process.

Mr. BRASCO. Dr. Brown, not to complicate this blueprint any further——

Dr. BROWN. It is a rainbow print by now.

Mr. Brasco. Possibly. However, we look to you for some of these answers. Obviously, we do not have them and I am aware that you do not have all the answers, but I do not know that there are any programs for the rehabilitation of those addicted to amphetamines and barbiturates, and these addicts are much greater in numbers than heroin addicts.

Might we include them in your blueprint?

Dr. Brown. The answer is yes, but let me just expand on it for a moment. The Comprehensive Drug Abuse Act changed our authority. Prior to the act, we were limited with our Federal funds for, say, community centers, to only opium addiction. Now, the act permits those funds to go also for treatment of amphetamines and barbiturates and other drugs of abuse so that we now can have community drug abuse treatment programs, and our recently funded programs now cover more than just the heroin problem. So, in that sense we do have new efforts and new authority to deal with the problem.

If our data are weak on the heroin, they are going to be, of course, weaker on the amphetamines and barbiturates, as you know.

Mr. Brasco. But you can include in this blueprint recommendations to cover that area, too.

Dr. Brown. Yes, we can.

Mr. Brasco. Because it would seem to me to be ludicrous to get into the area of heroin addiction and leave the others out.

Dr. Brown. Mr. Besteman?

Mr. Besteman. There is another important point. Maybe 10 or 15 years ago we talked about a person being a heroin addict and that would be his drug of choice and it might be his only drug. I think today in our community-based treatment centers we are seeing multiple drug users and people shifting in a historical sense from one set of drugs to another for a whole variety of reasons, and so we are getting experience with these other drug abusers without even trying. They are coming into a drug abuse center and nobody is asking—you know, what is the drug is not the first question. The first question is what do you need? How can we help?

Mr. Rangel. Your experiences are probably unique in any given community that you are going in but, of course, the thrust in my community has been whether you are a heroin addict or methadone addict. Is that true?

Mr. Besteman. It varies in——

Mr. Rangel. I mean, you do not ask anybody in central Harlem whether they are on pot or whether they are taking pills, you know. It is just, are you taking heroin or methadone?

Mr. Perito. Dr. Brown, the 91st Congress passed the Comprehensive Drug Abuse Prevention and Control Act. What new research money was provided and authorized for your Agency under that act?

Dr. Brown. The act itself did not authorize any new ceiling in research funds since that comes under a general authorization. It did provide new authorizations in the treatment and rehabilitation and education area. It did not provide new authorizations per se since we essentially have an open ended congressional authorization situation.

Our research efforts, again provided in that table, just for a perspective, read from 1968 to 1972, which is the way, reads $13, $14,

$15, $17, and $19 million, just to give you a sense of some modest increase in the research efforts.

Mr. PERITO. If I understand it correctly, in fiscal 1971, $7,987,000 was spent directly by NIMH on drug abuse research; is that correct?

Dr. BROWN. Yes.

Mr. PERITO. And in 1972, $9,325,000 will be spent?

Dr. BROWN. I do not know which subfigures you are adding. One of the issues, Mr. Perito, is that we spend approximately—the figures you said—$6 or $7 million in drug abuse, that is on the amphetamines and barbiturates, heroin, cocaine, et cetera. We do have a very important psychopharmacology research program that looks at all drug use and enhances our research endeavors, that $9.8 million, so when we give you the figure of $17 or $19 million and that is why we broke it down, one must distinguish between the subportion, roughly a third, that is, on drug abuse, clearly drugs of abuse, as opposed to psychopharmacology or drug use. So, the relationships from the research point of view, I am sure are clear to you.

Mr. PERITO. Two final questions. What was the demand for funds this past year for research in the area of narcotic antagonist?

Dr. BROWN. I do not know the answer for that. Dr. Martin, is that something you are aware of?

Dr. MARTIN. No.

Dr. BROWN. There was slightly more demand than we had resources for. That I can say, but not a heck of a lot.

Mr. PERITO. So, you turned down some requests for research in the area of antagonists?

Dr. BROWN. Not for antagonists per se. In relation to the antagonists we funded all the research that has come to us or that we could find.

Mr. PERITO. One final question for Dr. Martin. Dr. Martin, I take it from your testimony, that the resources available to private industry, insofar as laboratory facilities capable of performing toxicity studies are concerned, far exceed anything our Government has available to it. Is that a fair statement?

Dr. MARTIN. Yes; I think so.

Mr. PERITO. In your professional judgment, would it be worthwhile for our Government to greatly expand its laboratory facilities to do toxicity testing insofar as narcotics research is concerned?

Dr. MARTIN. Yes; I think this would be most helpful and most necessary.

Mr. PERITO. Thank you. Mr. Chairman.

Chairman PEPPER. Mr. Blommer?

Mr. BLOMMER. I have just one comment, Mr. Chairman, to enlighten our record and maybe Dr. Brown. Dr. Revici has no facilities for following up on the 1,700 people he has given Perse except for the 2 weeks he is in direct contact with them. So, I think that Congressman Steiger was a little bit misstating a point to say that they are fine. But I would add a note of hope and that is that the assistant coroner of New York City has never heard Dr. Revici's name.

That is all I have.

Chairman PEPPER. The last comment—that suggests the possibility that if you had somebody like Dr. Revici, who might not be very good at recordkeeping, not very good in keeping his files and the written data, would it be within the scope of your authority to help him, arrange to get somebody else to help him to perfect his records so that you would be able to evaluate the product that he proposes?

Dr. BROWN. Yes. We offer this type of technical assistance quite often.

Chairman PEPPER. That is good. I think when we go into that with you, which we want to do, then we can see what it would be—whether any help to him would be in the public interest or not.

Well, any other questions, gentlemen?

Doctor, we thank you very much, and Dr. Martin and the other gentlemen who have been with you. You have been very helpful to us and we will look forward to the receipt of the material that you have been kind enough to offer to furnish.

Dr. BROWN. Thank you very much.

Chairman PEPPER. We will adjourn until 10 o'clock tomorrow morning, here.

(The following material, previously referred to, was received for the record:)

[Exhibit No. 17(d)]

PREPARED STATEMENT OF DR. BERTRAM S. BROWN, DIRECTOR, NATIONAL INSTITUTE OF MENTAL HEALTH, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION, U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the committee, I appreciate this opportunity to appear before you today as Director of the Government agency which has primary responsibility within the Department of Health, Education, and Welfare for the non-law-enforcement aspects of the drug-abuse problem. In addition to sponsoring a broad program of research into the drug-abuse problem, the Institute is also funding treatment, training, and prevention programs through public information and education approaches. I recognize that the committee's primary interest is in the Institute's research programs, and I will concentrate on this in my testimony. Since we regard the drug-abuse problem as a unitary one, however, I may at times refer to the Institute's treatment, training, and prevention efforts. I have prepared detailed responses to the questions submitted by the committee and will be happy to submit them for the record. Instead of reading these responses, I thought I might present the committee with an overview of the Institute's research program.

I have with me Dr. William Martin, Chief of the Addiction Research Center, Lexington, Ky., who will provide the committee with more detailed material on the Institute's research program into determining the abuse potential of drugs and experimenting with pharmacological methods of treating narcotic addiction.

RESEARCH IN DRUG ABUSE

The Institute is sponsoring research regarding each of the five categories of commonly abused drugs: (1) Opiate drugs, also called narcotics; (2) sedative drugs, including barbiturates; (3) stimulant drugs, including amphetamines; (4) hallucinogenic drugs, including LSD; and (5) marihuana and related drugs, such as tetrahydrocannabinol. With regard to each of these drug categories, Institute research projects are focused on the following topics:

(*a*) Understanding the mechanism of action of these drugs.

(*b*) Studying factors which affect the development of tolerance or physical dependence which may lead to addiction.

(*c*) Studying the effects of these drugs of abuse in animals and humans.

(*d*) Developing methods of detecting and quantifying abused drugs in body tissues and fluids.

(*e*) Developing treatment methods.

In order to understand the mechanism of action of abused drugs, the Institute is funding research on the effects of these drugs at the cellular and molecular levels as well as on well-defined areas of the brain. In addition, studies are being carried out to determine how the body metabilizes these drugs and which metabolites are responsible for their psychoactive effects.

Studies on the ways in which tolerance or physical dependence develops focus on biochemical, pharmacological, and behavioral measures associated with tolerance to narcotic analgesics such as morphine. In an effort to understand how addiction occurs, these studies are exploring the effects of narcotic analgesics on brain proteins, RNA, and brain transmitters.

In studying the effects of drugs of abuse in animals and humans, researchers are exploring both long- and short-term effects and effects of both small and large doses. Studies are concentrating on the effects of drugs on coordination, thinking, perception, memory, and complex acts such as driving. Research is also being carried out on the potential genetic and carcinogenic effects of these drugs, as well as on their effects on developing fetuses.

Research into detecting abused drugs in body tissues and fluids includes research on opiates, barbiturates, marihuana, amphetamines, and hallucinogens. Better methods of detection will help those who are treating drug abusers and should reduce the expense, complexity, and error involved in screening and monitoring both patients and prisoner suspected of drug use. More sophisticated methods for quantifying and differentiating various types of drugs will also be useful to forensic pathologists and medical examiners.

Much research is now underway to evaluate the effectiveness of treatment and rehabilitation methods in the field of narcotic addiction. We are evaluating both pharmacological approaches, such as the narcotic antagonists and methadone, and nonpharmacological methods such as therapeutic communities, comprehensive centers, and desensitization techniques. As members of the committee may know, the Institute supports the treatment of addicts both under the civil commitment program of the Narcotic Addict Rehabilitation Act and under a grant program to establish community-based treatment centers, of which approximately 16 are now operating and another seven have been funded and are getting underway. In addition, under Public Law 91-513, the Institute is now authorized to fund individual treatment services such as detoxification centers, partial hospitalization, or emergency care.

Both the civil commitment program and the community-based comprehensive treatment centers employ pharmacological and nonpharmacological methods of treatment, and data is being gathered to evaluate the relative efficacy of these methods.

I should stress that we believe that no one method of treating narcotic addicts is "the answer." Addicts differ in their needs and in the kinds of therapy which are most helpful to them. As a result, it is necessary to evaluate a variety of treatment modalities.

As of March 1971, the narcotic treatment and rehabilitation programs supported by the Institute were assisting approximately 2,000 patients under the civil commitment program, of whom 1,300 were in the aftercare phase of treatment, and approximately 7,000 patients in the community-based treatment programs supported by Institute grants. Unfortunately, we cannot at present compare the results of the civil commitment treatment program and the community treatment programs because they are treating different groups of addicts. However, at a later date it should be possible to extract matched pairs of patients from the two groups and compare their degree of benefit. To illustrate the differences in the two groups, addicts being treated under the civil commitment program are 60 percent white and have an average age in the late twenties; whereas, the patients being treated in the community centers are over two-thirds black or Chicano and have an average age in the early to midtwenties. Moreover, the two groups are not equivalent in terms of employment histories, arrest histories, or education. What we can say now, however, is that both programs seem to be helping a large percentage of the patient populations whom they are treating.

The exact percentage of patients who are being helped depends on what measure you use to evaluate the patients' improvement. For example, you can look at the percent of patients who are working, or the percent who are staying out of jail, the percent who do not become readdicted, the percent who have returned to school, and so on. In the civil commitment program, a study of 1,200 patients who were in aftercare in 1970 showed that approximately 85 percent were employed, 70 percent were not arrested and spent no time in jail during that period, 35 percent were in self-help therapy, and 33 percent were pursuing their education. In addition, 80 percent of the patients who had been in aftercare for 3 months or more were completely free of heroin use. A similar statement can be made regarding the heroin use of patients who were in the community treatment programs. As you know, many patients during the treatment of their addiction may abuse drugs other than heroin occasionally, such as cocaine, marihuana, amphetamines, or barbiturates. Of the patients in the civil commitment program who had been in aftercare for 3 months or more, 60 percent were not abusing any drugs. The same is true of patients who had been in the community treatment program for 3 months or more. Of the patients who are in the civil commitment aftercare phase, we know that 60 percent do not become readdicted during their first year in aftercare. Of the remaining, 25 percent do abuse some drugs or become readdicted and require further hospital treatment. The remaining 15 percent drop out of the program.

There is a great deal of public interest currently in methadone maintenance treatment for narcotic addiction. Many claims and counterclaims are being made regarding its effectiveness. How effective is methadone maintenance treatment? The answer I am about to give you is a cautious one, but I believe represents the state of our knowledge at this time. The Food and Drug Administration, which has responsibility for determining the degree of safety and efficacy of drugs, has determined that the exact degree of safety and efficacy of methadone maintenance treatment in unknown at this time. Many groups, including groups in New York City, Illinois, and here in Washington, D.C., are evaluating methadone maintenance. The National Institute of Mental Health is currently sponsoring the use of methadone in both its civil commitment treatment program and its community-based treatment programs under carefully controlled conditions so that we can generate data to help determine methadone's safety and efficacy.

With regard to comparing methadone and other treatment modalities, I must again point out that the patients who are being treated with methadone differ in many characteristics from the patients who are being treated with other modalities. For example, they differ in age, sex, race, length of addiction, history of criminal behavior, and so on. Lastly, I might again say that comparisons of efficacy depend on which measures or benefits one looks at—employment, arrest records, drug abuse, or pursuit of education. At the present time I do not know of any conclusive studies which demonstrate significant differences between the benefits achieved by methadone patients compared with the benefits achieved by patients treated in other ways.

It might be good to mention here that we are studying other narcotic substitutes which may be longer acting than methadone. One drug we are testing is L-alpha-acetyl-methadol, whose effects last for 48 to 72 hours, and if successful, will mean that patients could come in from treatment only two to three times a week rather than every day. This would greatly decrease the cost of a maintenance program and allow the patient to live a more normal life. We are also supporting research into the development of a nontoxic removable implant which can deliver an antagonist drug slowly into the patient's system over a period of time so that the need for repeated medication would be markedly reduced. A fully safe and effective antagonist, however, has not yet been developed.

Mr. Chairman, my overview of the Intsitute's research program would not be complete unless I mentioned three additional activities. First, the Institute's program of supplying standardized pure preparations of drugs of abuse to qualified researchers. Originally this program focused on distributing LSD to researchers through the joint FDA–NIMH Psychotomimetric Agents Advisory Committee. With the increased use of marihuana and related drugs, the program has expanded to include a wider spectrum of drugs, including psilocybin, radioactively tagged and untagged tetrahydrocannabinol (Delta–8 and Delta-9 THC), a uniform standard grade of marihuana leaf, and most recently heroin for research purposes.

At present the Institute is not only supplying requests from the U.S. investigators but has established procedures with the Canadian Food and Drug Directorate and the United Nations Narcotics Laboratory for supplying and distributing these drugs for research in Canada and Western Europe. Information generated by research performed in foreign countries should help the U.S. research program. The number of requests for research drugs has doubled in the past year. Since this program's inception, 650 requests for research drugs have been filled, 250 of them for marihuana or its derivatives.

Second, the Institute is currently pretesting a number of educational materials including pamphlets, posters, workbooks, and films to determine their usefulness in reaching different groups within the population. Materials which pass this pretesting phase will be ready for release in the fall of this year. Some of the materials and educational materials which have previously been developed through the National Clearinghouse for Drug Abuse Information have been used in the Institute's training program, which in fiscal year 1970 provided 1- and 2-week courses on drug abuse for over 1,500 professionals, allied health workers, Government officials, and members of the public.

Lastly, I might mention the program being conducted at the Addiction Research Center by Dr. William Martin to develop improved methods of determining the abuse potential of drugs before they become problems on the street or in the clinic, and to study pharmacological treatments for narcotic addiction. Dr. Martin and his associates are investigating the conditions under which animals will self-administer drugs and are determining to what extent each drug induces physical and psychological dependence, behavioral toxicity, and harmful physiological effects. At this point, I would like to introduce Dr. William Martin, who can tell you in more detail about these research programs.

Question 1. What is the total amount of money that has been spent on narcotic addiction and drug abuse research from 1968 through 1971 and what is the projection for fiscal 1972?

Answer. The total amounts spent on narcotic addiction and drug abuse research within the Division of Narcotic Addiction and Drug Abuse, and related projects funded by other divisions, from 1968 through 1970, and the projections for 1971 and 1972 are itemized as follows:

	Thousands of dollars				
	1968	1969	1970	1971 estimate	1972 estimate
1. Research grants:					
DNADA	$2,506	$2,614	$3,650	$5,600	$6,549
Other divisions	[1]9,523	[1]10,131	[1]9,800	[1]9,800	[1]9,828
2. Contracts (marihuana study)	466	600	956	1,138	1,495
3. Intramural research (addiction research center) Lexington, Ky	770	752	769	841	866
4. Other dir operations (operating costs within Division of Narcotic Addiction and Drug Abuse)	187	200	396	408	415
Total Institute, drug abuse research activities	13,452	14,297	15,571	17,787	19,153

[1] Represents those NIMH research grants which are not funded by the Division of Narcotics Addiction and Drug Abuse; they include projects which are directly relevant to drug abuse research and some which are indirectly related. For example, they include projects which deal with drug research methodology, drug synthesis, the mechanisms of action in drugs, metabolic effects, and psychological effects. Even research on drugs which are not abused often produce basic new knowledge which is useful in drug abuse research

Question 2. How much money has been spent on grants, how much on contracts?

Answer. Within the Institute the amounts spent for research grants compared with the amounts spent for contracts (all of which are for studies on marihuana) are as follows:

[In thousand of dollars]

	1968	1969	1970	1971 estimate	1972 estimate
Research grants:					
DNADA	2,506	2,614	3,650	5,600	6,549
Other divisions [1]	9,523	10,131	9,800	9,800	9,828
Contracts	466	600	956	1,138	1,495

[1] Represents those NIMH research grants which are not funded by the Division of Narcotic Addiction and Drug Abuse; they include projects which are directly relevant to drug abuse research and some which are indirectly related. For example they include projects which deal with drug research methodology, drug synthesis, the mechanisms of action in drugs, metabolic effects, and psychological effects. Even research on drugs which are not abused often produces basic new knowledge which is useful in drug abuse research.

Question 3. How is the budget for such research determined? (Do budget requests filter up from the research project and scientific levels to the Office of Management and Budget or does the Budget Office issue lump sums to be divided at lower levels?)

Answer. Budgets for all Institute programs are developed in a process which involves the accommodation of program requirements to dollar ceilings. These budget ceilings are originally announced by the Office of Management and Budget, and are intended to cover very large program areas. The Office of the Secretary, DHEW, subdivides these ceilings among agencies, and, to a certain extent, by program activity within each agency.

In the meantime, the Institute develops its own estimate of budgetary requirements based on estimates made at the Division (scientific) levels. A major factor in the development of these estimates is the amount required to continue specific projects which have been initiated in previous years.

When the ceiling for the Institute is initially announced, our estimate of requirements is compared to the ceiling. There are opportunities for discussion of alternatives and options, and appeals for revision and additional funds are entertained by the Department. During this process, the need for additional research is weighed against other requirements, such as additional manpower programs and the need to provide community-based services. Within the general area of research and the ceiling and earmarkings which are ultimately placed upon it, the Institute has flexibility with respect to determing those priority programs in which uncommitted funds will be utilized for program growth.

Question 4. How is the total budget for drug abuse research allocated? What are the priorities?

Answer. During the past 3 years, the administration has earmarked specific funds for marihuana research in response to growing public interest in determining the health consequences of marihuana use and as a result of specific congressional directives on this subject. Other research priorities include: (1) Evaluating drug abuse prevention, treatment, and rehabilitation services; (2) developing effective chemotherapeutic approaches, such as narcotic antagonists and long-acting narcotic substitutes, to treating narcotic addicts; (3) carrying out basic physiological and behavioral research on the abuse potential and effects of drugs; and (4) carrying on epidemiological studies of patterns of drug use and abuse.

Question 5. Where are the policy decisions made as to which types of research shall be funded and which areas of drug research need to be funded?

Answer. Within the overall resources available to it for drug research, the NIMH establishes general priorities as described in the response to question 4.

Under the guidance of the Office of the Director, NIMH, the Institute utilizes the following advisory mechanisms:

(*a*) Once a year, outside experts in drug abuse research come together to review the research program of the Institute and to make recommendations regarding priorities, emphases, and directions that the research program should take, both long range and short range.

(*b*) Three times a year, a group of non-Federal experts come together to review specific research proposals. In their deliberations, this group is guided, not only by the work of the policymaking body, but also by the nature and quality of the research proposals. The job of this committee is to insure that the research proposed in a given priority area is scientifically sound.

(*c*) Four times a year the National Advisory Mental Health Council, composed of both professional and lay members, meets to review general NIMH policy issues and particular grant applications. In the course of these meetings, drug research policy and grant proposals are considered. No grant may be funded by the NIMH without approval of both the initial review group of non-Federal experts and the National Advisory Mental Health Council.

This system insures that two types of decisions are made in an appropriate manner: (1) Broad policy decisions regarding priorities, and (2) decisions regarding particular research protocols intended to further our knowledge within priority areas.

Question 6. What are the roles of the NIMH National Advisory Mental Health Council, the Narcotic Addiction and Drug Abuse Review Committee and the Division of Narcotic Addiction and Drug Abuse in determining the funding priorities of drug abuse research?

Answer. The Division of Narcotic Addiction and Drug Abuse is charged with administering drug abuse research program within overall NIMH priorities. It develops policy regarding funding priorities and assumes final responsibility for implementing these priorities through the grant and contract mechanisms. The Division obtains the advice of nationally recognized consultants in the field of narcotic addiction and drug abuse, as well as panels which come together to advise it on the progress being made in our research program and what future directions it should take.

The Narcotic Addiction and Drug Abuse Review Committee carries out the responsibility of evaluating specific research proposals and making recommendations to the Division as to the scientific quality of the work to be done and as to the advisability of funding a specific proposal. In carrying out this activity, the Review Committee is cognizant of the priorities established by the NIMH and takes these into account as they review specific proposals.

The National Advisory Mental Health Council reviews the research policies of the NIMH in the area of narcotic addiction and drug abuse and makes recommendations regarding the program. In addition, the Council examines the recommendations of the Review Committee regarding specific proposals and makes a final determination as to the disposition of these proposals for funding.

The final step in the process rests with the Division. Having received the recommendations of the Review Committee and the approval of the Advisory Council, the Division must then determine, in light of available funds and the research priorities of the Division's program, which of the approved research projects will receive funding.

Question 7. How are drug abuse contracts used? Who is responsible for decisions on the types of contracts to be issued?

Answer. Contracts are utilized by the NIMH when it is important that the Government define precisely what needs to be done, how it shall be done, and what the product will be. Contracts are now being used for the production of the various forms of marihuana to be used in research, the toxicological and the pharmacological assays of marihuana, as well as other aspects of our intensive marihuana research program. The contract mechanism is also being utilized in education, public information, and treatment (NARA) programs.

Responsibility for decisions on the use of contracts and the types of contracts to be issued rests with the Division. In executing this responsibility, the Division utilizes consultants. In most instances, the contracts constitute one mechanism to carry out a part of the priority system established for the research program. Wherever possible, contracts are placed on open bid. Panels of experts review the various proposals in much the same way as the Narcotic Addiction and Drug Abuse Review Committee evaluates proposals for research grant funding.

Question 8. What areas of research show the most promise for cures of narcotic addiction, for treatment of narcotic addiction, and in prevention of drug abuse?

Answer. Much research is now underway to evaluate the effectiveness of treatment and rehabilitation methods in the field of narcotic addiction. We are evaluating both pharmacological approaches, such as the narcotic antagonists and methadone, and nonpharmacological methods such as therapeutic communities, comprehensive centers, and desensitization techniques. As members of the committee may know, the Institute supports the treatment of addicts both under the civil commitment program of the Narcotic Addict Rehabilitation Act and under a grant program to establish community-based treatment centers of which approximately 16 are now operating and another seven have been funded and are getting underway. In addition, under Public Law 91–513, the Institute is now authorized to fund individual treatment services such as detoxification centers, partial hospitalization, or emergency care.

Both the civil commitment program and the community-based comprehensive treatment centers employ pharmacological and nonpharmacological methods of treatment, and data is being gathered to evaluate the relative efficacy of these methods.

I should stress that we believe that no one method of treating narcotic addicts is "the answer." Addicts differ in their needs and in the kinds of therapy which are most helpful to them. As a result, it is necessary to evaluate a variety of treatment modalities.

As of October 1970, the narcotic treatment and rehabilitation programs supported by the Institute were assisting approximately 1,800 patients under the civil commitment program, of whom 1,200 were in the aftercare phase of treatment, and approximately 5,300 patients in the community-based treatment programs supported by Institute grants. Unfortunately, we cannot at present compare the results of the civil commitments treatment program and the community treatment programs because they are treating different groups of addicts. However, at a later date it should be possible to extract matched pairs of patients from the two groups and compare their degree of benefit. To illustrate the differences in the two groups, addicts being treated under the civil commitment program are 60 percent white and have an average age in the late twenties; whereas, the patients being treated in the community centers are over two-thirds black or Chicano and have an average age in the early- to mid-twenties. Moreover, the two groups are not equivalent in terms of employment histories, arrest histories, or education. What we can say now, however, is that both programs seem to be helping a large percentage of the patient populations whom they are treating.

The exact percentage of patients who are being helped depends on what measure you use to evaluate the patients' improvement. For example, you can look at the percent of patients who are working, or the percent who are staying out of jail, the percent who do not become re-addicted, the percent who have returned to school, and so on. In the civil commitment program, a study of 1,200 patients who were in aftercare in 1970 showed that approximately 85 percent were employed, 70 percent were not arrested and spent no time in jail during that period, 35 percent were in self-help therapy, and 33 percent were pursuing their education. In addition, 80 percent of the patients who had been in aftercare for 3 months or more were completely free of heroin use. A similar statement can be made regarding the heroin use of patients who were in the community treatment programs. As you know, many patients during the treatment of their addiction may abuse drugs other than heroin occasionally, such as marihuana, amphetamines, or barbiturates. Of the patients in the civil commitment program who had been in aftercare for 3 months or more, 60 percent were not abusing any drugs. The same is true of patients who had been in the community treatment program for 3 months or more. If the patients who are in the civil commitment aftercare phase, we know that 60 percent do not become re-addicted during their first year in aftercare. Of the remaining, 25 percent do abuse some drugs or become re-addicted and require further hospital treatment. The remaining 15 percent drop out of the program.

As the committee is well aware, there is a great deal of public interest currently in methadone maintenance treatment for narcotic addiction. Many claims and counterclaims are being made regarding its effectiveness. How effective is methadone maintenance treatment? The answer I am about to give you is a cautious one, but I believe represents the state of our knowledge at this time. The Food and Drug Administration, which has responsibility for determining the degree of safety and efficacy of drugs, has determined that the exact degree of safety and efficacy of methadone maintenance treatment is unknown at this time. Many groups, including groups in New York City, Illinois, and here in Washington, D.C., are evaluating methadone maintenance. The National Institute of Mental Health is currently sponsoring the use of methadone in both its civil commitment treatment program and its community-based treatment programs under carefully controlled conditions so that we can generate data to help determine methadone's safety and efficacy.

With regard to comparing methadone and other treatment modalities, I must again point out that the patients who are being treated with methadone differ in many characteristics from the patients who are being treated with other modailities. For example, they differ in age, sex, race, length of addiction, history of criminal behavior, and so on. Lastly, I might again say that comparisons of efficacy depend on which measures or benefits one looks at—employment, arrest records, drug abuse, or pursuit of education. Although the results I am about to give you have to be viewed in the light of differences in the groups being compared, it appears that there are no large differences between the benefits achieved by methadone patients compared with the benefits achieved by patients treated in other ways. For example, more than 70 percent of both methadone and nonmethadone patients in the civil commitment program were not arrested and spent no time in jail during 1970. Approximately equal percentages of the two groups, that is about one-third, were engaged in educational activities. Although it would appear that more methadone patients were working than nonmethadone patients, that is 87 percent of methadone patients versus 65 percent of nonmethadone patients, this figure is misleading since in some programs methadone patients are required to be employed before they can be admitted into treatment. The one exception to the generally comparable results between methadone and nonmethadone treatments is that in the community treatment program a larger percentage of patients treated with methadone remain in the program longer than the patients treated with other modalities.

In addition to evaluating methadone maintenance, therapeutic communities and comprehensive centers which offer these treatments as well as emergency care, partial hospitalization, and consultation and education, the Institute is also sponsoring the development and evaluation of narcotic antagonists, such as cyclazocine and naloxone, and longer-acting narcotic substitutes such as L-alpha-acetyl-methadol. A longer acting narcotic substitute would greatly decrease the cost of a maintenance program and allow the patient to live a more normal life. We are also supporting research into the development of a nontoxic removable implant which can deliver an antagonist drug such as cyclazocine slowly into the patient's system over a period of time so that the need for repeated medication would be markedly reduced. While these treatment approaches are promising, it is far too early to assess their ultimate safety and efficacy.

With regard to prevention of drug abuse, the Institute together with other Federal agencies is sponsoring a public information and education effort. Information and education alone, however, will not be sufficient to prevent drug abuse. In many instances, drug abuse stems from motives and social conditions which are not readily affected by education. Prevention efforts must include, therefore, broad programs of social reform and psychological help to allow meaningful, satisfying lives for adolescents as well as adults. Prevention efforts must, of course, also include efforts to limit the supply of illicit drugs and the diversion of legal drugs into illicit channels.

Question 9. Would more money for research in these areas hasten the discovery of effective cures and treatment?

Answer. Yes; it is highly probable that additional funds would have this result.

In recent years there have been two major developments which increase the likelihood of "payoff" in the treatment area from additional research. The first of these is that an increasing number of competent scientists are now available to undertake research in the drug abuse area. In the past, few skilled investigators were available to undertake studies in this area.

Second, recent research work in several basic fields now has increased the likelihood of significant breakthroughs in the near future that may well have substantial implications for treatment programs. For example, the work of Dr. Julius Axelrod, the Nobel laureate, in the NIMH intramural research laboratories, on Dopamine; and that of Dr. William Martin at the NIMH Addiction Research Center in Lexington, Ky., on tryptamine, represent significant progress in our understanding of basic neurological processes underlying narcotic addiction.

Question 10. What role in research do you believe should be played by private industry and private scientific organizations such as the National Academy of Sciences Research Council?

Answer. Apart from the research efforts of pharmaceutical companies, which are for the most part focused on commercially feasible compounds, roles for private industry in drug abuse research are only beginning to emerge. The NIMH would encourage the participation of private industry in this area.

Several private foundations have expressed interest regarding roles they might play in narcotic addiction and drug abuse research. On May 26 Secretary Richardson and representatives of other Federal agencies will be meeting with foundation executives to explore this matter in greater detail.

Staff of the NIMH have initiated discussions with the Division of Behavioral Sciences of the National Academy of Sciences regarding a role for the Academy in evaluating the impact of the NIMH drug information and education program. The Academy has expressed interest in this project but no formal agreements have as yet been reached. In addition, the National Academy of Sciences recently brought together a panel of experts in drug abuse research to advise it on possible roles for the Academy regarding heroin and related drugs. The Academy is considering undertaking activities through its Divisions of Medical Sciences and Behavioral Sciences but has not as yet reached final decision regarding these activities and has not made them public.

Question 11. What system have you developed to prevent a recurrence of the problems that now exist with regard to the lack of information on marihuana? We understand that so little is known about marihuana that it has been necessary to increase the funding in marihuana research from $1.5 million in 1969 to $3.3 million in 1971 while *research on narcotics in the same period has merely increased from $3.2 million to $3.9 million?*

Answer. Budget increases have been specifically earmarked for marihuana research during the past 3 years. The administration has earmarked these funds in response to growing public interest in determining the health consequences of marihuana use and as a result of specific congressional directives on this subject. The estimated expenditure for fiscal year 1971 is $2.8 million rather than $3.3 million.

Initial work in the marihuana research program concentrated on developing techniques to produce natural and synthetic material of known composition and strength. Only by knowing the dose administered can researchers draw meaningful interpretations from their results.

The marihuana contract program has established a system of production and supply of both natural and synthetic material with high quality control. The availability of material of known potency has stimulated a large number of studies. In fiscal year 1971, research was focused on the effects of synthetic and natural marihuana in animals, and important advances have been made in determining the fate of marihuana compounds in animals and man.

The primary metabolic products of the two presently known active constituents of marihuana, delta-8 and delta-9 tetrahydrocannabinal, have been identified, isolated, and their molecular structures described.

Studies of the effects of marihuana on perception, cognition, and motor performance are underway and have begun to clarify the consequences of acute marihuana use, as described in the Secretary's report to the Congress recently. The biochemistry and mechanism of action of marihuana are also under investigation with a variety of tools, and the potential impact of marihuana use on driving, memory, and attention are being carefully investigated. Perhaps the most important question concerning marihuana is the effect of long-term use at low and moderate dosage levels. Two controlled studies are underway in foreign populations to determine what impact chronic use may have upon health, occupational, social, and illness variables. In this country, careful studies are underway to determine tolerance to marihuana, cross-tolerance between marihuana and alcohol, opiates and hallunciogens, and synergism with other psychoactive drugs. The effects of marihuana on reproductive processes are under scrutiny, with both neurological and behavioral examinations of successive generations of animals exposed to marihuana leaf and synthetic materials.

To avoid a recurrence of the knowledge gap problem associated with marihuana, the Department is actively assessing the abuse potential of new drugs that come on the market. In addition, community and health surveys now enable us at an early stage to systematically study the health and social consequences of various substances that are being used.

There are two additional steps that could be taken to obtain information as early as possible about new drugs of abuse: The first step would be to expand our capabilities to evaluate the abuse potential of drugs being produced; the second step would be to establish drug surveillance in the streets that would enable us to become quickly aware of what drugs are starting to be abused and to take appropriate steps to counter such abuse. These steps would give us warning and hopefully lead time. However, research into the genetic, carcinogenic, and other physiological and behavioral effects of drugs always take some time and cannot be accomplished instantaneously.

Question 12. How much money has been spent on research into narcotics, into marihuana, into central nervous system stimulants, and into narcotic antagonists, over the last 4 years?

Answer. Table I gives the requested information for fiscal year 1969. Note that all NIMH research activities are included in this table. Tables II (a) and (b) present similar data for fiscal year 1970. The detailed presentation for fiscal year 1970 also deals with the NIMH grants program in drug abuse as funded by the Division of Narcotic and Drug Abuse (top row of figures) and other units of NIMH (second row of figures). The final amounts to be spent out of the fiscal year 1971 budget for these various categories are not yet known. (Data is not available for fiscal year 1968.)

TABLE I.—NIMH RESEARCH GRANTS RELEVANT TO DRUG ABUSE AWARDED OUT OF FISCAL YEAR 1969 FUNDS

	Amphetamines and other stimulants		Barbiturates and other depressants		Opiates, other narcotics and their antagonists		LSD and similar hallucinogens		Marihuana and THC		Drugs not specified		No drugs and other drugs		Total	
	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards
Drug abuse funded by DNADA:																
Single drug categories	3	$90, 199			22	$884, 805	4	$105, 940	6	$187, 767	2	$199, 481			37	$1, 468, 552
Multiple drug categories	10	227, 393	10	239, 793	10	295, 619	10	249, 146	10	169, 962					18	1, 181, 913
Total	13	317, 592	10	239, 793	32	1, 180, 424	14	355, 086	16	357, 729	2	199, 841			55	2, 650, 165
Drug abuse funded by other NIMH divisions:																
Single drug categories			1	164, 158	4	568, 880					5	197, 117	3	56, 499	13	986, 654
Multiple drug categories	7	390, 517	8	588, 012	2	199, 221	5	278, 443	1	71, 373					9	1, 527, 566
Total	7	390, 517	9	752, 170	6	768, 101	5	278, 443	1	71, 373	5	197, 117	3	56, 499	22	2, 514, 220
Totals:																
Single	3	90, 199	1	164, 158	26	1, 453, 685	4	105, 940	6	187, 767	7	396, 958	3	56, 499	50	2, 455, 206
Multiple	17	617, 910	18	827, 805	12	494, 840	15	527, 589	11	241, 335					27	2, 709, 479
Total	20	708, 109	19	991, 963	38	1, 948, 525	19	633, 529	17	429, 102	7	396, 958	3	56, 499	77	5, 164, 685

Note: The above figures for multiple drug categories are prorated by drug groups.

TABLE II(A).—NIMH RESEARCH GRANTS RELEVANT TO DRUG ABUSE AWARDED OUT OF FISCAL YEAR 1970 FUNDS

	Amphetamines and other stimulants		Barbiturates and other depressants		Opiates, other narcotics and their antagonists		LSD and similar hallucinogens		Marihuana and THC		Drugs not specified		No drugs and other drugs		Total	
	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards	Number of grants	Amount of awards
Drug abuse funded by DNADA:																
Single drug categories	3	$148,356	1	$26,265	23	$954,366	5	$164,729	13	$568,525	3	$299,286			48	$2,161,527
Multipe drug categories	19	427,101	17	408,190	13	289,381	12	217,791	9	146,010					26	1,488,473
Total	22	575,457	18	434,455	36,	1,243,747	17	382,520	22	714,535	3	299,286			74	3,650,000
Drug abuse funded by other NIMH divisions:																
Single drug categories			1	103,858	4	488,781					2	173,131	2	33,655	9	[1] 799,425
Multiple drug categories		401,138	10	597,821	4	217,308	4	261,568	1	72,637					10	1,550,472
Total		401,138	11	701,679	8	706,089	4	261,568	1	72,637	2	173,131	2	33,655	19	2,349,897
Totals:																
Single	3	148,356	2	130,123	27	1,443,147	5	164,729	13	568,525	5	472,417	2	33,655	57	2,960,952
Multiple	26	828,239	27	1,006,011	17	506,689	16	479,359	10	218,647	0	0	0	0	36	3,038,945
Total	29	976,595	29	1,136,134	44	1,949,836	21	644,088	23	787,172	5	472,417	2	33,655	93	5,999,897

---

[1] The number of grants in these categories varies from year to year depending on the determinations made by the scientific review committees.

Note: The above figures for multiple drug categories are prorated by drug groups.

TABLE II(b).—NIMH RESEARCH GRANTS RELEVANT TO METHADONE AND OTHER NARCOTIC ANTAGONISTS INCLUDING CYCLAZOCINE, NALORPHINE, NALOXONE, AND LEVALLORPHAN

[Awarded from 1970 funds]

	Number of Grants	Amount of prorated award [1]	Amount of award not prorated
Grants re methadone	6	$207,597	$255,327
Grants re methadone and other narcotic antagonists	1	72,637	290,547
Grants re other narcotic antagonists	5	103,547	120,007
Total	12	383,781	665,881

[1] These amounts are figured as that portion prorated to narcotic drugs where grants are relevant to multiple drug categories.

[Exhibit No. 17(e)]

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
SURGEON GENERAL OF THE PUBLIC HEALTH SERVICE,
Washington, D.C., June 21, 1971.

HON. CLAUDE PEPPER,
Chairman, Select Committee on Crime,
House of Representatives, Washington, D.C.

DEAR MR. CHAIRMAN: This replies to yout letter dated June 8 requesting my comments on two matters related to opium.

I believe that it is desirable for the U.S. Government to advocate and negotiate toward the total eradication of opium cultivation in all nations of the world. It will take some time to achieve the desired goal but we should start now. As U.S. delegate to the 24th World Health Assembly I recommended last month that the Director General of the World Health Organization be requested to appoint an international panel of experts to consider and report on the feasibility of replacing opiates with synthetic drugs. Such a study, I believe, would be necessary before we would be able to secure the concurrences of the several producing and the many consuming nations with a complete ban on opium production.

I believe also that it will require some time to prepare for a ban on the licit importation of opium and morphine into the United States. Opium derivatives, including morphine, are widely used in the legitimate practice of medicine in this country. It would not be feasible in my judgment to bring about suddenly the significant changes in the practice of medicine that would be required if Congress should outlaw the licit use of opium and its derivatives. Studies indicate that synthetic substitutes are available for the several purposes for which opium and its derivatives are employed in medicine, and I would favor educational measures on the part of the Government and organized medicine looking toward a drastic curtailment of the licit use of opium and its derivatives with a view to eventual elimination of opium production.

Further, I believe that continued research is desirable to develop more effective substitutes for the various derivatives of opium which hopefully would show less addictive potential.

With kindest regards,
Sincerely yours,

JESSE L. STEINFELD, M.D.

(Whereupon, at 3:40 p.m., the hearing was adjourned, to reconvene at 10 a.m., Friday, June 4, 1971.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

FRIDAY, JUNE 4, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m., in room 2325, Rayburn House Office Building, the Honorable Claude Pepper (chairman), presiding.

Present: Representatives Pepper, Brasco, Mann, Murphy, Steiger, Winn, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order, please. As I have said before, the Crime Committee is primarily concerned with substantially reducing crime in this country.

We have had evidence from Dr. Robert Dupont, who is the head of the Narcotics Treatment Administration of the District of Columbia, that 50 percent of the homicides in the District of Columbia are are attributable to the use of narcotics and about 50 percent of the crime generally is also attributable to the use of heroin.

Dr. Dupont testified last year before our committee that in the District of Columbia it was his observation that each heroin addict got illegal possession of about $50,000 worth of property a year, by murder, or mugging, or burglary, or robbery, or theft, or some illegal way.

We have had estimates here from knowledgeable public officials that there are some 250,000 heroin addicts in the United States. If Dr. Dupont's estimate that each addict is responsible for getting illegal possession of about $50,000 worth of property per year, and you multiply that by 250,000 addicts, you get the figure of $12.5 billion worth of property that we can anticipate the heroin addicts will take from the people of this country annually.

Now, it was estimated here by Mr. Ingersoll, that probably the cost of heroin was $3½ to $4 billion a year. I think he primarily meant how much it cost in trying to stop it and other costs, but when you take into account the number of homicides, the amount of illegal acquisition of property, court delay and court costs, you can see why the Crime Committee is very much concerned about heroin addiction in the United States.

Today, the Select Committee on Crime continues, a part of its continuing investigation into heroin addiction in the United States.

In past hearings we have concentrated on the multiple problems of the heroin supply and efforts to halt heroin smuggling and we have been told, you recall, that only about 20 percent of the heroin smuggled into this country is seized in spite of all the efforts of our Government officials. We have also concentrated on curbing the availability of materials used to dilute and package heroin, what we call paraphernalia, and we have introduced legislation for a model law on that subject in the District of Columbia, and we are bringing such legislation as we propose to the attention of the attorneys general of the several States in the Union.

In this week's hearings, we have been inquiring into what scientists have been doing to combat addiction, and what they could do if they had more funds. We have examined in depth the use of methadone as a maintenance drug, and the majority of the testimony we have received clearly indicates that it can be effective in reducing crime and helping an addict to lead a more normal life.

But as Dr. Bertram Brown, Director of the National Institute of Mental Health, told us yesterday, it is valuable treatment only for, perhaps, one-fourth to one-third of the addict population. Clearly, then, we must find some way of treating the majority of addicts who are not, in Dr. Brown's estimate, amenable to methadone maintenance treatment.

Yesterday we had testimony that less than 35,000 people out of an estimated 250,000 heroin addicts in the United States are being treated by methadone and only a few hundred, or a few thousand, are being treated by other drugs. So, you see that even the drugs that we have are not being made available to more than a very small percentage out of an addict population of 250,000. So, you can see the magnitude of the problem with which we have to deal.

It also seems clear to me that not enough money is being spent to find treatment modalities that will be effective for those addicts not amenable to treatment with methadone. I certainly commend the President on his proposed program to make an effective attack upon this heroin problem, but with all respect, it is my opinion that if we are going to do it, it has to be done on a large scale. I hope the attack will not be a piddling one or will be so relatively insignificant that we have not come anywhere near adequately to grips with the magnitude of the problem.

Dr. Brown told us that the state of our knowledge of addiction and means of curing it must still be called primitive. Now, he is talking about the United States of America. I think we have the greatest volume of scientific know-how and the greatest wealth of any nation in the world, and yet the top official in this field described what we have accomplished and done so far as primitive.

This is no reflection, of course, on the ability of the dedicated men working in this field, but rather a result of the inadequate funding, and Congress must bear its share of responsibility, and lack of urgency attached to the problem in the past by all branches of the Government.

We can no longer afford to seek remedies to this scourge upon our Nation using primitive methods and scant resources. We have the ability to develop highly sophisticated techniques to combat drug addiction, but the main obstacle standing in the way of that sophistication is inadequate funding.

If drug abuse costs the Nation $3½ to $4 billion a year, surely we ought to spend more than the $17.7 million a year that we are now spending for research through NIMH. It seems to me that a major investment in research that will produce effective drugs to combat addiction and will yield dividends far in excess of the investment.

If, for example, Congress were to direct NIMH to conduct a crash research program funded at a billion dollars a year to find a drug that would immunize a person against addiction, we could probably find this drug within a few years. And if we did it, we could reduce crime in the United States, including homicide, according to the evidence we have, by 50 percent. And if we did, then the almost $4 billion a year we now spend in direct and indirect costs might become an item of the past.

To show you the economy of this research, Dr. Dole, as has been pointed out here, testified before our committee in New York, that he developed methadone on a financial shoestring, and yet it is the best drug we have, the only relatively effective drug we have today. You see what an enormous profit we have obtained upon that meager financial investment.

It seems to me that both economics and human decency dictate a national commitment to finding a cure for addiction.

Today we are going to hear about some of the drugs now being used on an experimental basis by scientists not associated with the Federal Government. We want them to tell us of their successes, and how we can help them in their important and lifesaving work.

Our first witness today is Dr. Julian E. Villarreal, associate professor in pharmacology at the University of Michigan Medical School.

Dr. Villarreal holds a bachelor of science degree and a doctor of medicine degree from National University in Mexico City, Mexico, and a Ph. D. in pharmacology from the University of Michigan.

Dr. Villarreal has authored or coauthored over a score of articles on narcotics and synthetic analgesics. He is a member of the American Academy of Clinical Toxicology and its Committee on Drug Dependence; the Society for Neuroscience; and the Society for Behavioral Pharmacology.

Dr. Villarreal is in charge of the University of Michigan's program for testing new morphinelike compounds, which is sponsored by the Drug Dependence Committee of the National Research Council. He is an expert on laboratory research, on analgesics, and narcotic antagonists.

Dr. Villarreal, we are very much pleased to have you with us today and will listen with great interest to your description of your important work.

Chairman PEPPER. Mr. Perito, will you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Villarreal, would you care to proceed? I understand you have a statement; is that correct?

STATEMENT OF DR. JULIAN E. VILLARREAL, ASSOCIATE PROFESSOR OF PHARMACOLOGY, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

Dr. VILLARREAL. Yes.

Mr. PERITO. Would you prefer to read your prepared statement and use your slides in conjunction with it?

Dr. VILLARREAL. I would prefer to speak for about 5 minutes and then show some of the slides.

Mr. PERITO. Mr. Chairman, may Dr. Villarreal's statement be incorporated in the record?

Chairman PEPPER. Without objection, so ordered.

Mr. PERITO. Please proceed, Doctor.

Dr. VILLARREAL. Thank you, Mr. Chairman. It is an honor to be here today speaking before your committee. The main purpose of my presentation today is to describe to you the current status of the research in the field of drug dependence and to give you an idea of the possibilities for its future contributions to the solution of the problem of human drug dependence.

I am convinced, and many others that work in the field are also convinced, that we have a very strong grip on the nature of the problem of drug dependence and that if the efforts are spent and the necessary funds and thinking are invested in the problem, we could within a short period of time come up with very effective agents for the management, or perhaps cure, of human opiate dependence.

I would like to start by saying that for the last 10 years, I have worked with monkeys, doing objective investigations on narcotic dependence in this species. This experience with monkeys creates a very peculiar perspective on the nature of the problem of drug dependence.

Many people like to think that drug dependence is a peculiarly human problem, that it is related to existential problems of man and to issues that are peculiar to the psychology of man.

We see drug dependence created every day on a routine basis in monkeys that do not have Oedipus complexes, do not have existential problems and do not have despairs about the evils of the society. We, therefore, believe that the nature, the main core, of the problem of psychological as well as physical dependence to the major drugs of dependence in the human involves physiological processes that are primarily behavioral in nature; automatic, rather than existential or social.

Psychological or social issues come into the picture in inducing people to begin experimenting with drugs and in maintaining conditions in which drugs are widely available and conditions in which there are little alternative channels of behavior for the human addict that wants to rehabilitate himself.

To review the field briefly, I want to note that laboratory work has first of all produced already several thousand compounds, morphine analgesics and morphine antagonists. You have had testifying before you, Dr. Nathan B. Eddy, who has been a tremendous force in this field. The development of many of these compounds is due to his encouragement and to his direction and his leadership.

The synthesis of all these compounds has produced an enormous body of knowledge. We have several thousand morphinelike drugs. We also have several hundred narcotic antagonists. We know how to make long-acting drugs, short-acting drugs, potent antagonists, weak antagonists, antagonists with a little bit of morphinelike activity, antagonists with morphinelike properties. But all of these drugs have been developed primarily for the possibility of using them in the treatment of pain.

There has been no concerted serious effort, except lately, to develop compounds that may be specifically used in the treatment of drug dependence. As you know, Dr. Martin, in isolation, started working with cyclazocine in the middle 1960's. The groups of Dr. Fink and Dr. Freedman has done work with cyclazocine and naloxone. However, all of these have been isolated instances of efforts in the direction that we are interested today.

We have a problem of leadership and we have a problem with the drug industry, which has been relatively uninterested in working along the lines of developing products for treatment of drug dependence. I know only of one drug firm that has a program on antidependence drugs.

Mr. Perito. Doctor, why does that situation exist? Why has not the drug industry done something more about developing a drug such as this?

Dr. Villarreal. I can only guess, of course. There is, first of all, the fact that no one thought about this before. Misconceptions on the nature of psychological dependence precluded ideas that drugs could be used for the treatment of dependence, for the production of a psychophysiological condition in which there is a reduced drive to seek for drugs.

Other factors which may play a role here may be related to the fact that drug firms tend to be conservative and that they do not anticipate sufficient profits from this type of research. Drug firms may also anticipate controversy and risks of getting some bad publicity if there is debate which affects them negatively. Again, these are only my guesses.

Chairman Pepper. The committee will contact the drug companies concerning this subject (See exhibit No. 32.)

Mr. Perito. On the basis of your experience, could you estimate what it would cost for a commitment by a drug house to develop an antagonist?

Dr. Villarreal. Well, again, this can only be a guess based on average figures from industry, but the development of a drug—once you have selected a drug to be developed—costs on the average $5 million. Industry also has to consider the fact that once a drug comes into the market, there are other companies that may come into the field and compete with their drug. They anticipate that on the average a drug has a half life in the market of about 5 years. So, they need to get a return of at least $5 million in 5 years.

Most drug companies do not like to deal with drugs which have such small markets. They need to get more return to cover the basic research which led to the identification of the drug that was developed.

Mr. Brasco. Doctor, if I might on this point, in connection with the drug companies, I think that they have a particularly callous point of view with respect to their refusal to get involved in the research area, but I am concerned about another thing.

I consider them to be a prime offender in this drug abuse area because of the fact that they seem to have an inexhaustible supply of mind-altering drugs that they continually produce and with all kinds of advertisements and newspaper advertisements that these drugs are being sold to the American public for what I consider to be rather minor ailments. I am wondering whether or not you agree with that or disagree with it.

Dr. VILLARREAL. Well, it may be one of the factors that leads people to experiment with drugs of dependence. However, I must point out that there are many mind-altering drugs that do not produce dependence. There is a large class of tranquilizers that are used for treatment of psychotic individuals. Physicians have a very hard time keeping people taking those pills. The evidence is overwhelming that there are only a few drug classes that generate this overwhelming inpulse to repeat the drug experience: Heroin, cocaine, amphetamines, barbiturates, and to a lesser extent, alcohol.

Mr. BRASCO. Well, they just seem to me to be setting up an atmosphere for people to take pills and this begins as you indicated and agreed with a moment ago, the atmosphere for wanting to start to experiment with drugs further. I think they are off on a completely wrong track in the grab for profit.

Dr. VILLARREAL. I would say some of the major drug houses have already started programs for screening their new compounds to screen out those that have psychological dependence potential.

Mr. BRASCO. For instance, they have even resisted moves to properly label those drugs which are harmful in terms of the fact that they come up with the fact that it is too expensive or they have color codes of their own. They are producing harmful drugs in many cases that are look-alike drugs. One may be a barbiturate and looks like aspirin and they refuse to mark them clearly, so that unless one has them in the proper prescription vial, no one even knows what the true ingredients are and it seems to me their whole attitude is callous and indifferent.

Thank you. I do not want to take any more time.

Mr. PERITO. Dr. Villarreal, would you explain briefly for the committee, the type of activity, the type of reaction, you observe in your monkeys once you give them opiate drugs, heroin, morphine?

Dr. VILLARREAL. Perhaps I should get into my slides and go quickly through them to give you an idea.

Mr. PERITO. Please.

Dr. VILLARREAL. If I may show some of them.

[Slide]

Dr. VILLARREAL. All this work has been done at the laboratory founded by Dr. Maurice Seavers, who was a witness before this committee a few weeks ago. It has been established that the monkey responds to narcotics and to stimulants of the cocaine-type very much like man does. The monkeys shown in this slide are monkeys that were given a low dose of morphine. They had typical responses that are also observed in the human.

These are monkeys that were given a small dose of morphine. They respond very much like man. They are totally unconcerned about human experimenters coming around. These animals are wild. They do not ever let people get close to them. This is just to show that the response of the monkey is very close to the response of man to these types of drugs.

[Slide]

Dr. VILLARREAL. The main experiments that I want to describe to you today are the experiments in which monkeys are made or allowed to become psychologically dependent on narcotics. These monkeys are surgically prepared with an interavenous polyethylene tube and it is left in one of their veins permanently. The tube comes out of the back of the monkey between the shoulder blades and through a metal arm goes into the back of a cubicle where there is an automatic syringe.

[Slide]

Dr. VILLARREAL. The cubicle is also equipped with a microswitch bar-press device that the monkey can operate to deliver into his own bloodstream an injection of drug.

The graph does not show very well, but I will describe it to you. The points represent the number of injections that an animal gives himself every day. Each point is the number of injections per day.

When we had physiological saline solution in the automatic injector, this monkey did not press for it. The moment we put Profadol in the automatic syringe which is a morphine-like compound, a new synthetic compound, the monkey immediately started taking injections, about 350 a day. Then he cut down to about 180 and he maintained that rate of self-injections for about 15 days.

When we switched him from the drug back to saline he quit bar pressing. We put him back on the drug, at the extreme right, and the animal went back to taking about 350 or 200 injections a day.

This is basically the picture we find with all drugs of dependence Monkeys take all the drugs that are abused by man. They do not take the drugs that are not known to be compulsively taken by humans.

Mr. PERITO. And what drugs would those be, basically?

Dr. VILLARREAL. Phenothiazines, for example. Also the narcotic antagonist cyclazocine.

[Slide]

Dr. VILLARREAL. This is the same thing, with morphine, the time course of the development of psychological dependence in three monkeys that are given access to morphine.

I must point out that these monkeys are not coerced in any way. They take morphine and increase their daily intake progressively in the course of a month to the point where they take some 70 injections every day.

Mr. BLOMMER. Excuse me, Doctor. Could you explain a little more clearly how these monkeys can give themselves drugs?

Dr. VILLARREAL. Yes. There is a little bar in the cubicle and when the monkey hits that bar—he has to press with some force—there is a circuit that activates an automatic syringe that injects into the bloodstream of the monkey a dose of the drug.

Chairman PEPPER. So, he gives it to himself periodically.

Dr. VILLARREAL. Yes, sir. He does not have to and he does not know when the drugs that are put in the syringe are not of the dependence-producing type.

[Slide]

Dr. VILLARREAL. This is with methadone. Methadone intravenously is not any different from morphine, or for that matter from heroin, and it is just the same thing. The slide shows the time course of dependence over successive days, from the beginning of the experiment. The animals take a progressively greater number of injections of drugs per day.

Mr. Perito. Doctor, given the choice between methadone and heroin which drug does the monkey prefer?

Dr. Villarreal. It is very difficult to answer that question because experimentally it is very complicated.

Mr. Brasco. Doctor, you indicated when you start back with the saline solution that the monkey does not inject himself. Is that correct?

Dr. Villlarreal. That is right.

Mr. Brasco. Well, does he go through withdrawal symptoms, as a human would?

Dr. Villarreal. Yes; they do go into withdrawal symptoms just like a human. The monkey was initially used because the withdrawal symptoms are so much like man.

Mr. Brasco Would he then stay away from the bar until he is injected with an addictive substance again?

Dr. Villarreal. Not necessarily.

Mr. Brasco. But you would first have to give him that first injection and then he would go back to the bar.

Dr. Villarreal. No. You do not have to do anything. Just give him the opportunity to do it himself.

Mr. Brasco. In other words, what you are saying is he will keep going to the bar periodically until he gets what he considers to be the right stuff.

Dr. Villarreal. That is correct; yes. The first few trials, of course, are accidental trials. The monkey may be exploring his environment until he happens to hit the lever or the bar that delivers that injection.

Mr. Brasco. I was trying to clear that up—now it is cleared up—because I was wondering how he got back to the bar again after you gave him the saline solution. But, apparently, he keeps going to that bar periodically checking for the stuff.

Dr. Villarreal. That is right.

Mr. Brasco. Fine Thank you.

[Slide]

Dr. Villarreal. These are records of monkeys that were taking morphine. The upper graph shows the performance of a monkey over a period of 27 weeks. It is like with a human addict. Monkeys given access to morphine injections, or methadone injections, take the drug very regularly, day after day, for very prolonged periods of time.

Like the human, the monkey responds differently to the cocaine, amphetamine-type stimulants. It a is very irregular kind of drug self-administration. There are a few days of very heavy drug taking followed by periods of spontaneous abstinence and followed by another period of very heavy drug taking, and so on, just as many human users of cocaine and amphetamine.

[Slide]

Dr. Villarreal. We can make the monkeys work very hard for the drug. Instead of requiring that they bar press just once, you can increase the requirement for drug injection. And they may be required to bar press 30 times to get an injection, and with some of the stronger drugs, like cocaine, morphine, heroin, we can have a monkey bar press two or 3,000 times to get an injection. This is very strong evidence of the power of these drugs to reprogram the brain, if you want, to lead the animals to seek drugs in the same way they would normally seek food or water or sex or some other strong biological stimuli.

I do not think I should explain the details of these records but these records are records of animals that are working very hard bar pressing 30 times for each one of the injections of the drugs shown, codeine, cocaine, methadone, morphine.

[Slide]

Dr. VILLARREAL. Now, this is a newer drug, pentazocine. This is an analgesic that is in the market, has been in the market for about 3 years. This animal was given access to this drug in cycles, alternating the drug with a saline, which is inert, and for those of you who can read the slide, you can see that every time the animal was given access to the drug the number of self-injections went up and every time the animal was switched back to the inert physiological saline the bar pressing went all the way down.

The rationale for the use of antagonists in this type of situation is that the antagonists are drugs which very effectively block, abolish, the effects of narcotics. These narcotic antagonists are some of the most powerful drugs that we have in all of pharmacology and medicine. And as some of the members of the committee have heard already, there are some antagonists that are pure antagonists; they have no other actions except the actions that block the effect of narcotics. There are other antagonists, like cyclazocine, that have side effects, central depressing effects.

Mr. PERITO. Doctor, could you just briefly describe for the committee the distinction between a blockage drug like methadone and an antagonistic drug like cyclazocine?

Dr. VILLARREAL. Methadone, of course, is a special kind of morphine-like drug and morphine-like drugs have the characteristics of producing tolerance very rapidly. So, large doses of morphine or methadone or heroin will produce a reduction in the sensitivity of the subject to the effects of the drug that is being taken, and you will also have cross-tolerance. In other words, a subject that is tolerant to morphine will also be tolerant to methadone or to heroin.

Methadone can be and has been given, as you know, by Dr. Dole in very large doses, doses that produce tolerance to all the narcotics, and the doses of methadone have been large enough so that the effects of large doses of heroin are blocked. But methadone has all the properties of morphine, produce physical dependence, and so on.

The pure antagonists such as naloxone have no other properties except that of antagonizing and blocking the effects of narcotics.

Mr. PERITO. And they would be nonaddictive; is that correct?

Dr. VILLARREAL. Nonaddictive; that is right. Cyclazocine has some sedative effects of its own and has some unpleasant effects, as you know.

Mr. PERITO. Thank you, Doctor.

[Slide]

Dr. VILLARREAL. Now, these are experiments on a monkey that was taking cocaine and codeine on alternate dates. He is working in a schedule in which he had to bar press 30 times to get the drug and you can see that his behavior—I do not want to explain the record but each time that the animal bar pressed, the pen of the record went up so that those ramps indicate the animal did a lot of bar pressing—some 1,000 responses in each one of those panels—to get some 30 injections of each one of the drugs shown there.

In the lower two graphs are illustrated experiments in which the animal was taking codeine alone, to your left, in which he made about a thousand bar presses to get 30 injections of codeine, and then his behavior in 1 day in which he was pretreated with an injection of naloxone. When he was pretreated with naloxone he bar pressed a few times, about 50 times, and quit immediately. There was no more bar pressing in spite of the fact the drug was available to him.

Mr. BRASCO. Doctor, naloxone is not a substance upon which one becomes dependent?

Dr. VILLARREAL. That is correct.

Mr. BRASCO. In the case of this monkey, after he was given a dose of naloxone, he did not bar press.

Dr. VILLARREAL. That is right.

Mr. BRASCO. Now, how did he come to bar press again when you took the naloxone away? I do not understand that. If you are not dependent on naloxone it would seem to me that that would be a successful treatment for taking someone off drugs and having them drug free. I do not get the relationship of his bar pressing again.

Dr. VILLARREAL. Perhaps I can answer your question this way. When the animal is switched from any drug to an inert substance, to saline, just physiological solution, the animal quits bar pressing. And what we have done with the pretreatment of naloxone is to render codeine totally ineffective so that the self-injections of codeine are like self-injections of physiological saline. There is no longer anything in the syringe.

Mr. BRASCO. So, he does not bar press at all.

Dr. VILLARREAL. He probes a little bit as you saw at the beginning of the session, because he has all this drive but when there is no effect, he quits.

Mr. BRASCO. Then, how does he go back to bar pressing again, because the apparatus gives him another shot of an addictive substance or does he do that by accident?

Dr. VILLARREAL. He will do that by accident or by the strength of the habit of bar pressing behavior.

[Slide]

Dr. VILLARREAL. These few slides that come next will get to the point I think you are driving at. These are graphs of successive days in which the monkeys are taking codeine. They are taking about 60 injections a day. The monkey takes about 65, 58, 52, and so on, injections a day. This goes on for months and months.

On this day we treat him with naloxone and he quits. He quits for 2 days. Only on the first day he got naloxone. But then a little bit of exploration, a little bit of probing on the bar, brings him back to experience the full effects of codeine. So, as codeine is available again he goes back to the previous behavioral base line.

Mr. BRASCO. The point is this. After the naloxone treatment he still has the physiological urge for the drug.

Dr. VILLARREAL. Yes.

Mr. BRASCO. So than naloxone would be something that would have to be given steadily also.

Dr. VILLARREAL. That is right.

Mr. BRASCO. As methadone.

Dr. Villarreal. Until the reflex dies out completely. One shot of naloxone is sufficient to block the drive for self-administration on that day but continued treatment would be necessary to block it completely.

Mr. Brasco. Do we know how long the continued treatment would be?

Dr. Villarreal. No.

Mr. Brasco. Thank you.

Mr. Winn. Have you tried continued treatment for as long as 30 days?

Dr. Villarreal. No; we have not done that yet.

[Slide]

Dr. Villarreal. This graph illustrates that the same thing occurs with the other drugs of the narcotic class. Again you have a baseline of self-administration of pentazocine for 5 days and then on 1 day the animal is treated with naloxone and then for 7 days the animal does not return to bar pressing but then at the eighth day he goes back up again.

[Slide]

Dr. Villarreal. This is just dose response curves, how much naloxone is needed. Before we can get to the point of investigating how long a treatment must be, we have to investigate a number of other variables, like what dose ratios are important, how much naloxone will antagonize, how much of what narcotic, whether or not the animals have to have the drug around the clock or whether intermittent administration of the antagonists will be sufficient

These are questions that are easy to ask but take a long time to resolve in the laboratory. Each one of the experiments shown in this graph took about a year to do.

Mr. Winn. Doctor, have you tried any other inert substance other than saline?

Dr. Villarreal. We have tried a whole lot of other drugs that do not produce psychological dependence.

Mr. Winn. Can you give the committee several examples?

Dr. Villarreal. Well, cyclazocine is one example of a drug that is not self-administered. If an animal is, say, taking cocaine, which is a very strong dependence-producing drug and he is switched to cyclazocine, he quits immediately.

Mr. Winn. Just like the experiments that you have had with saline.

Dr. Villarreal. That is right. The same thing happens with other narcotic antagonists such as nalorphine, levallorphan. The same thing happens with phenothiazine, drugs used as major tranquilizers.

Mr. Winn. They just do not turn them on. They stop pressing the bar because they have no desire for those because they get no results from them: is that right?

Dr. Villarreal. That is right.

Mr. Perito. Please continue.

Dr. Villarreal. I think I will stop with the slides here.

Mr. Perito. Doctor, could you, for the benefit of the committee, give a brief summary of your conclusions as a result of studying this compulsive self-administration behavior in monkeys?

Dr. Villarreal. Yes. I believe that the conclusions are tremendously important. Conclusion No. 1 would be that we have a very good model in animals of the problem of human drug dependence, both of the physical type and of the psychological type, so-called psychological type. The monkey model is especially good in my view, and the view of many others, in that we are not likely to project into the monkey our own prejudices and experimenters are a lot more likely to analyze the whole problem in a completely objective way. You have all the experimental controls that you need and, more importantly, you have the potential for studying and developing tools that can be used for intervention in the human instance of drug dependence.

We know that rats and mice, not only monkeys, will self-administer the drugs that man self-administers. So, we are dealing here with a phenomenon that is low in the order of nervous processes. It is not something that requires the highest abilities or the highest psychological features of man. It is not a disorder in which the brain is reprogramed, if you allow me to speak loosely. In a way, one can understand this if one thinks about cigarette smoking. When cigarette smoking is done for the first time its effects are very unpleasant. A high fraction of the first smokers get sick, but if their friends push them to do a few more trials, then nicotine starts producing the reflex of self-administration and all of us who smoke know that most of the pleasure from smoking comes from the satisfaction of an impulse to smoke and not for any intrinsic sensory pleasure-producing properties of nicotine.

Mr. PERITO. Have any of these monkeys been given nicotine?

Dr. VILLARREAL. Yes. Monkeys take nicotine just like man with alacrity.

Mr. PERITO. Well, would you conclude from all of these factors that your clinical colleagues who say that addiction is 95 percent psychological and 5 percent physical, that it is just not true, based upon your observation?

Dr. VILLARREAL. Well, it is pyschological in the sense that you do not have an abstinence syndrome. You do not have to have an abstinence syndrome to have very strong self-administration. It is a behavioral reflex—psychological if you want—it is an impulse not related to an abstinence syndrome. The fact that rats and monkeys do this in the absence of physical dependence, in the absence of an abstinence syndrome, indicates we are not dealing here with a human with a problem that is primarily existential. Of course, I am not saying anything about the causes that lead people to start experimenting with drugs.

Chairman PEPPER. I was not clear that I got the doctor's conclusions.

Is the taking of heroin primarily psychological or is it primarily biological?

Dr. VILLARREAL. Well, the historical development of these concepts is such that initially it was thought that physical dependence and the abstinence syndrome were the main driving forces in compulsive drug-seeking behavior. However, it was later found that physical dependence is not the whole story with narcotic craving.

The reasoning was, well, if it is not in the body it has got to be in the mind and if it is not physical it has got to be psychological. So, we are left with the term psychological dependence, but what the evidence strongly shows is that these drugs have the ability to generate, as a reflex, an impulse to take the drug. That impulse is generated in animals that have very simple central nervous systems.

Chairman PEPPER. Would it be your conclusion that if you use drugs as an antagonist or as a blockage agent that you would still need attention to the psychiatric aspects of this matter?

Dr. VILLARREAL. Oh, certainly. Perhaps Dr. Kurland and Dr. Resnick would like to comment on this but in my own mind, I have the following view: That there are just two ways of dealing with the problem of this behavioral impulse to take the drug. One is to block the drug and to block the phenomenon, the development of this drug-seeking behavior, and the other one is to generate strong competing behavior. This is what psychologists and what psychiatrists do when they treat their patients, to make it possible for their patients to engage in productive channels of behavior.

Chairman PEPPER. Would that lead you to suggest that when we are treating, let us say, heroin addiction, that it would be desirable to have some sort of an institution, a clinic, where attention could be given, where there would be proper observation of the recipient of the drug?

Dr. VILLARREAL. Oh, certainly.

Chairman PEPPER. And where there be psychiatric and therapeutic and other types of assistance given to the recipients?

Dr. VILLARREAL. Yes. Mechanisms that will generate competing behavior.

Mr. BRASCO. Doctor, you might clear something up in my mind. With the drug, naloxone, in our last colloquy I got the impression that this particular drug has the qualities to basically render an addict, after use for a period of time, into a position where he does not need it any more psychologically or physiologically. Is that correct?

Dr. VILLARREAL. Yes; that is correct.

Mr. BRASCO. That is what you feel this drug can do or you hope it can do?

Dr. VILLARREAL. We very strongly think that it will do it. We do not have the proof yet because the evidence will have to come from human work.

Mr. BRASCO. But that is the direction you are working in.

Dr. VILLARREAL. Yes. There is very little question in my mind that it will work.

Mr. BRASCO. To get the addict in a position where he will not be dependent on anything.

Dr. VILLARREAL. Yes.

Mr. BRASCO. Now, just one last thing. This cyclazocine is a similar kind of drug as naloxone; is that correct?

Dr. VILLARREAL. That is correct.

Mr. BRASCO. Now, I also understood you to say that cyclazocine has some bad side effects that are unacceptable medically; is that correct?

Dr. VILLARREAL. My understanding of the clinical trials with cyclazocine is that it has had low acceptance by a fraction of the addicts at least, and the fact that Dr. Martin introduced the possible use of this drug to the medical literature in 1965 and that so far we have had only about 500 or 600 people on it, suggests that it has low acceptance. At least, it is not something that people will come to.

Mr. BRASCO. So, what you are basically talking about, is not so much the bad side effects but there is not enough work done on it?

Dr. VILLARREAL. Well, there are bad side effects.

Mr. BRASCO. There are bad side effects.

Dr. VILLARREAL. The bad side effects can be dealt with effectively by slow increases in dose. Dr. Resnick is more competent to answer this question with regard to humans.

Mr. BRASCO. All right. We will ask that of Dr. Resnick.

Thank you.

Dr. VILLARREAL. I would like to say one last thing. The fact that we have the animal models of human dependence has opened up the possibility for the research on other drugs that will block self-administration of narcotics, not just the narcotic antagonists.

Mr. PERITO. Are such drugs within our capability of development?

Dr. VILLARREAL. Well, this is more remote. The antagonists—we already have quite a few, as you know. It is just a question of development. There is no more research that has to be done. The question is to have effective delivery methods of keeping up concentrations in the blood and tissues for long periods of time.

Mr. PERITO. You mean you know the basic concept of an antagonist. What you need to do is develop one that has a longer duration of action. Is that what you are saying?

Dr. VILLARREAL. That is right. We have a whole lot of very potent drugs on the shelf.

Mr. PERITO. What is the reason we have not developed this?

Dr. VILLARREAL. There have been very few people who have thought about it. Leadership has been missing. Dr. Martin had been behind it. A group of doctors, mainly Freedman and Fink, have been pushing it but there have been very few isolated instances of human research.

Chairman PEPPER. Doctor, have the efforts to develop some of these different drugs, blockage drugs and immunizing drugs, have those efforts been impeded by lack of funds?

Dr. VILLARREAL. They have not been encouraged.

Chairman PEPPER. Well, now, you are at a university. You evidently are a very great leader in this field. Have you had adequate financing for the programs upon which you are working?

Dr. VILLARREAL. We do not have specific financing for the development of antidependence drugs. Our research is funded on the basis of the work we do for developing analgesics. We have done the antidependence research on the side.

Chairman PEPPER. Do you think if the Federal Government, through an appropriate agency, after a proper screening process, made funds available for the development of leads that scientists have uncovered, that we could make a great deal of progress toward finding the necessary drugs to treat these addictions?

Dr. VILLARREAL. I would think that would be indispensable to make serious progress along these lines, either formalizing and organizing the isolated efforts of different individuals or by making contracts to specific drug firms to develop compounds along the lines we have discussed.

Chairman Pepper. One other question. Is there a reservoir of talent in the colleges and universities of the country that could be devoted to such objectives as these if they were adequately financed and encouraged?

Dr. Villarreal. Yes; there would have to be a great deal of leadership and organization centrally to see what people could do and perhaps a committee of the people that have already done work in this field could organize something along the lines you suggest.

Chairman Pepper. Now, would it be desirable, Doctor, if you had a Federal agency that could not only make funds available and assist in screening in collaboration with the scientific community the proposals that were made but could coordinate as among Federal, State, and other agencies, the drug industry, and the colleges and universities of the country, a massive research program toward these objectives?

Dr. Villarreal. Yes, it would be very highly desirable. There is just one factor universities do not have. They do not have the know-how and the wide experience that industry has in certain stages of development. The studies of toxicology, the pharmaceutical formulations, the red tape to get the clinical trials, and so on.

Chairman Pepper. I have also been told—I would like to ask you if you think there is any truth in this—that one reason the universities are reluctant to get into these areas is because these men are valuable men and there are many demands upon their time and at the same time, they have to think about continuity of their own employment. So, if they are pulled off of a program that seems to have permanence and put on a program which is only temporary in character, which may terminate at an early date, it is more difficult to get these good men to give continuity to such programs; is it not?

Dr. Villarreal. Well, that is right, but that is a generalized problem for all research. I would note, though, that there are some precedents in the antimalarial drug research programs that were carried out in universities during the war and also the anticancer program of the National Institutes of Health.

Chairman Pepper. Do you have any questions, Mr. Blommer?

Mr. Blommer. One question, Doctor. I have talked to a man who was a drug addict and was sent to Dannemora Prison for 6 years without any drugs. When he got out of prison he got on the train going back to New York City. He got 30 miles from New York City and started going into withdrawal symptoms and he was vomiting.

Now, at the point that that man physically had withdrawal symptoms, would you say he was suffering from a mental problem or a physical problem, or both?

Dr. Villarreal. Well, both. That is, the impulse to take the drug is a physical thing as well as a psychological thing, if you want. That is, the main point is that the drug users do not reason, well, I am going to have a drug, and go through a syllogism and a formal reasoning. It is something that occurs to them. They find themselves looking for the drug. It is like the alcoholic who drinks or is looking in his pocket for the money. He finds he is an alcoholic when he is spending $15 a week on whisky, but not before.

These are not rational decisions made. These are things that happen. The addict finds that you have this impulse to take the drug.

Mr. Blommer. Can the learning behavior that he must acquire be induced by chemical means or is psychotherapy enough?

Dr. Villarreal. Psychotherapy has been enough for some people because it generates competing behavior. It straightens them out in other ways so they can have other forces engage their behavior and not leave them time to go for drugs. This, of course, is rare.

Synanon is one case in which a lot of competing behavior is produced. Synanon and Synanon-type organizations generate an enormous amount of competing behavior and an enormous amount of self-discipline which have been effective in the people that are adequately qualified to get into that program.

The point is that if you block the effect of a drug and the subject falls into the temptation provided by the impulse or the environment, the impulse to take the drug will die out inevitably.

Mr. Blommer. But has not Synanon really failed to teach people that consistently?

Dr. Villarreal. Well, they have been very successful with a fraction of the population of the addicts without any question. A small fraction, unfortunately. It requires a great deal of commitment. And not all addicts can go that route.

Mr. Blommer. That is all I have.

Chairman Pepper. Mr. Brasco.

Mr. Brasco. Yes; Dr. Villarreal, let me see if we can reduce this to where I personally can understand it. I thought I did before.

In your slides you seem to indicate that the repeated taking of drugs was a physical thing rather than the process of making a determination activated by the thought processes. And, of course, you use the animals because they do not have the same thought processes as man. But getting back to the situation that counsel just mentioned and having practiced criminal law some 10 years myself before I was elected to Congress, I have found people who were in prisons for a long period of time have the same reaction as was just described.

Now, I cannot see how that would be primarily physically motivated because if it was, I would think he would have those symptoms while he was incarcerated as well as when he got back to his home environment. It would seem to me that the fact that he was off drugs for 6 or 10 years and goes through withdrawal symptons would be primarily something that is activated by the mind. Do you understand my question?

Dr. Villarreal. Yes; I think I do. Your question is similar to the following: We humans eat food; we do not eat things that are nonnutritious; we feel impulses to eat things that are food and not things that are nonnutritious.

What are the elements in food that determine that? How do we know what materials are food? Again, in sexual behavior, men are attracted by women and vice versa and we are not attracted to other animals, or animals to animals of different species, and the question is what determines those programs that are printed in the brain?

In the case of food materials, food materials are those materials that have the properties of generating eating behavior. You eat them once. The impulse comes back to do the same thing again and you know you are hungry when you feel the impulse to eat.

Mr. Brasco. Well, I understand what you are saying.

Dr. Villarreal. So, it is a biological thing that has very strong psychological connotations.

Mr. Brasco. That is the point that I am trying to make, Doctor. I understand what you are saying but my point was trying to get a conclusion as to whether or not the impulse to eat—is that just a physical thing or is that a mental thing or a combination of both? Or is one more dominant than the other?

It would just seem to me while it may be an impulse, it is motivated more by the mind than just the physical.

Dr. Villarreal. Its origins are reflex, though, just as the drug-taking behavior. I will just say this: There is evidence that both the cocaine-type drugs and morphinelike and heroinlike drugs have actions in the brain very similar to actions of other stimuli such as food in a hungry organism or water in a thristy organism.

Mr. Brasco. Let me just ask you this, Doctor. Do you receive any Federal grants in your program that you were just describing?

Dr. Villarreal. Yes; our department has a grant from NIMH.

Mr. Brasco. Can you tell us how much that is?

Dr. Villarreal. I think so. It is $110,000 a year.

Mr. Brasco. And that is not primarily for doing the work that you just described for us and showed us in the slides; is that correct?

Dr. Villarreal. I have to elaborate on this. We have another grant from the National Research Council for the development of dependence-free analgesics and the grant from NIMH is a grant for the general study or the phenomenon of the basic events in the phenomenon of drug self-administration.

Mr. Brasco. Here is what I am trying to find out.

Dr. Villarreal. There is no specific money for the development of antagonists for the treatment of dependence.

Mr. Brasco. None.

Dr. Villarreal. None.

Mr. Brasco. What would you need to follow through the program that we discussed moments ago in connection with trying to perfect naloxone or similar kinds of drug which would hopefully render an addict into a position where he would not be dependent on anything?

Dr. Villarreal. I think that the most urgent need is to have the formal organization or formal committee or formal reference point where people who are working in this field put together their heads and organize their needs and set priorities.

Mr. Brasco. I understand that, but as you said before, that is easily talked about but up to this point not easily accomplished and I was curious as to your individual program.

Would you have any idea what kind of a budget you may need just in that specific area in order to make some progress?

Dr. Villarreal. We are limited in what we can do. That is, our department has just so much space and so much personnel, and most of the development aspects of the work cannot be done in our place. They would be better done in private research institutes or through contracts with the drug industry.

Mr. Brasco. So, what you are basically saying: You are developing the seeds of different ideas and approaches which would be better turned over to some larger organization or agency for final culmination of conclusions.

Dr. Villarreal. That puts it very well; yes.

Mr. Brasco. Thank you.

Chairman Pepper. Mr. Steiger?

Mr. Steiger. Thank you, Mr. Chairman.

Doctor, I am sorry I missed what apparently, by all reports, was a fascinating discussion. You mentioned that the primates on cocaine exhibited the ability to undergo the most rigorous kinds of barriers in order to continue to acquire the cocaine.

Is the brain structure sufficiently similar between the primates that you used and the addict on the street that we could assume that there are many addicts that would undergo equally torturous efforts?

Dr. Villarreal. I think the evidence clearly shows that there is a very strong analogy between the two species. I personally know of one addict who spends $800 a month in cocaine. Spending $800 a month in cocaine represents a lot of investment.

Mr. Steiger. Is that stronger or more addictive than the heroin?

Dr. Villarreal. It is very difficult to make those conclusions unequivocally.

Mr. Steiger. Well, have you got any qualitative analysis of the primate which would indicate the relative strengths of addiction to cocaine and heroin?

Dr. Villarreal. We are doing work on those issues now, but we do not have solid data yet.

Mr. Steiger. Thank you, Mr. Chairman.

Chairman Pepper. Mr. Mann.

Mr. Mann. Doctor, are the services of your laboratory available to drug manufacturers on a fee or contract basis?

Dr. Villarreal. We have not done that because we have a commitment with the National Research Council and the way we test drugs from the private drug industry is through the mediation of the National Research Council.

My policy, the policy of my chairman, has been that we do not work with direct contracts with the drug industry but there is nothing really specified——

Mr. Mann. To prevent it.

What basis does the National Research Council use or what agreements do they have with the private drug manufacturer to channel the testing of their experimental drugs to your laboratory; do you know?

Dr. Villarreal. Oh, yes. For some 30 years or so, the arrangement has been an extremely informal arrangement. Dr. Nathan Eddy corresponds with the drug manufacturers and the drug manufacturers give the drug dependence committee voluntary contributions every year which support the work of the National Research Council on Drug Dependence. And then, as these private manufacturers produce drugs that require testing, they send those drugs to the National Research Council group and they distribute them either to us for monkey tests or for the clinicians to do the clinical work with them after they are tested in monkeys.

Mr. Mann. Well, some agency such as the National Research Council or a change in the thrust of the National Research Council could result in a laboratory such as you are having the primary function of developing antagonists or in the drug dependency field.

Dr. VILLARREAL. That is correct.

Mr. MANN. You would recommend that as well as the broader coordinating effort?

Dr. VILLARREAL. That is right, because it would require the coordination of clinicians, pharmaceutical chemists, pharmacologists, behaviorists, toxicologists.

Mr. MANN. I am very much interested in your expression of confidence in the fact that naloxone may be an eventful cure.

Dr. VILLARREAL. I think Dr. Resnick may address to the limitations of naloxone. Naloxone or one of its analogues will do the job.

Mr. MANN. Based upon your experiments what motivation can be generated for an addict to take naloxone?

Dr. VILLARREAL. Naloxone is pretty inert except in large doses. So, it is like water, like nothing.

Mr. MANN. But assuming that he took it in a single dose and found that he got no kick, then, from the next dose of heroin, what is going to make him continue on naloxone?

Dr. VILLARREAL. Well, these are questions about behavioral control which I think would be better dealt with by those witnesses that deal with humans. I can think of some possibilities but I do not have firsthand experience in that.

Mr. MANN. Since your work is primarily with analgesics, you no doubt have been involved in a study of the question of whether or not an analgesic can ever be nondependency creating on a psychological basis.

Dr. VILLARREAL. Well, cyclazocine itself is a pretty good analgesic except that it has some unpleasant side effects and its developers preferred to promote pentazocine, Talwin, which is widely used and has remarkably reduced dependence potential compared with morphine. It is a strong analgesic and it produces very little physical dependence. There are very few people that abuse Talwin.

To give you some figures, the standard clinical dose of morphine is 10 milligrams. If you take 300 a day, you become very severely dependent and have a horrendous abstinence syndrome.

Now, the standard dose of Talwin, pentazocine, is 30 milligrams. There are people who have taken up to 900 milligrams a day, thirtyfold, the same 1 to 30 ratio as I said with morphine. Nine hundred milligrams is 30 times the clinical dose, for long periods of time and then withdrawal produces a very minimal abstinence. The subjects feel a few cramps, feel a little uneasy. There is a vast difference between pentazocine and morphine and I know there are better drugs than pentazocine in the development stage.

Mr. MANN. Thank you, Doctor.

Chairman PEPPER. Mr. Winn.

Mr. WINN. Thank you, Mr. Chairman.

Doctor, you keep referring to leadership and Congressman Mann was asking you some questions on this. Who, other than the President—I believe recently he has expressed his concern—should furnish the leadership in this fight against drugs?

Now, you mentioned the National Research Council. Should we look to HEW, the National Science Foundation? Who should furnish this leadership, in your opinion?

Dr. Villarreal. Well, the National Research Council has a long history of very strong leadership in this business.

Mr. Winn. Does the National Research Council work closely with the medical schools, particularly those who are receiving large grants in the research field?

Dr. Villarreal. The National Research Council is not, primarily, a fund-granting agency. I believe that the only group in the whole of the National Research Council that has granted money for research is the committee on drug dependence and their budget is really very low. I think the budget has been of the order of $200,000 a year, something like that. Now it is about $300,000 or $350,000.

Mr. Winn. Well, have not some of the medical schools, working on drug dependence been given grants?

Dr. Villarreal. Oh, yes. By NIMH.

Mr. Winn. What I am trying to figure out in my own mind is who should coordinate all of this. We are looking for the leadership now.

Dr. Villarreal. I think NIMH people; Dr. Martin, who has had a long interest in this.

Mr. Winn. I am talking more from an agency standpoint rather than individuals.

Dr. Villarreal. NIMH probably would be the best place.

Mr. Winn. All right. In a little different point, now. In your studies that you showed us on the screen, and we appreciated your testimony here this morning, did you find any psychological indications in the monkeys? Do you have any way of testing that? You showed us the physiological results. Do I make myself clear?

Dr Villarreal. Yes.

Mr. Winn. Psychologically, did things show up in your studies that surprised you?

Dr. Villarreal. We believe that what we call psychological is what shows up as behavior in this particular case.

Mr. Winn. It is more a behavioral study than psychological.

Dr. Villarreal. Yes, but the drug issue in my opinion, and many others, is a behavioral issue primarily, the core of the drug dependence problem, and this is what I think is the main lesson of the animal experiments.

Mr. Winn. But as I understood it, you contend that it is more physiological than psychological.

Dr. Villarreal. It is physiological in the same way that eating is physiological. Eating has psychological connotations to it, and sex, of course, has all kinds of connotations to it. But the sex drive is primarily biological and I think the conclusions of these experiments is that with the major drugs, the drug-seeking drive is primarily biological. We like to call it psychological because there is no physical dependence.

Mr. Winn. So, it is both physiological and psychological which combines the behavioral pattern, is that right?

Dr. Villarreal. Yes.

Mr. Winn. Now, just for my own clarification. Where are these bars that these monkeys press? Are they in front of them or are they hooked on to them, on their arms, or what?

Dr. Villarreal. No; the cubicle is about this big and the bar is a little 1-inch thing that sticks out of one of the walls. The monkey finds it in normal exploration. People have used other devices, plungers, for instance. It does not really matter.

Mr. WINN. Something built in that is not part of the ordinary walls of the structure.

Dr. VILLARREAL. That is right.

Mr. WINN. So, he can get hold of it, push it, pull it or whatever he does.

Dr. VILLARREAL. It does not have to be very prominent.

Mr. WINN. They find it pretty fast.

Dr. VILLARREAL. Some monkeys take longer than others, but they find it; yes.

Mr. WINN. Thank you, Doctor.

Chairman PEPPER. Mr. Keating.

Mr. KEATING. Thank you, Mr. Chairman.

Doctor, I wonder if you could bear with me and repeat the answer to one of the earlier questions and define antagonist and how it is contrasted with blockage drugs.

Dr. VILLARREAL. Well, the antagonist is a drug which either prevents or reverses the effect of the narcotic and it does it in a very complete and thorough way and the antagonist is also a drug that in its own right does not have an effect.

Mr. KEATING. Not addictive or——

Dr. VILLARREAL. Or no effect of any kind. Naloxone is a pure antagonist, a drug that does not have any other properties. Cyclazocine is an antagonist with some side effects.

Now, methadone is just like morphine, like heroin, except that it has certain subtle differences that make it useful for the management of addicts.

Mr. KEATING. How close are we to real usage of naloxone?

Dr. VILLARREAL. I do not think we are close to that but perhaps the other witnesses will address themselves to that. There are problems that have to be solved with development research.

Mr. KEATING. I am just wondering how close we are to actually the use in the public or public use. Your experiments, you say, are pretty far along in its usage?

Dr. VILLARREAL. There are clinical trials that I believe Dr. Kurland and Dr. Resnick can discuss more up-to-date than I.

Mr. KEATING. Is there any application to humans at this time?

Dr. VILLARREAL. Oh, yes. I understand naloxone was just released by FDA as an antidote for narcotic overdoses. So, the drug is in the market already.

Mr. KEATING. On how limited a usage?

Dr. VILLARREAL. I have not read the specific list of approved uses but it is an antidote for narcotic overdoses.

Mr. KEATING. Could you answer or could one of the other gentlemen answer, if everything goes according to the way you expect it to go apparently, how long it could be before general use?

Dr. VILLARREAL. If people really worked hard on it, I suppose a couple of years, 3 years at the most.

Mr. KEATING. Two or 3 years.

Dr. VILLARREAL. That is right.

Mr. KEATING. And this is the closest thing we have now as an antagonist.

Dr. VILLARREAL. There are a few others that are just as exciting. M–5050, a British drug, a compound—I understand Dr. Martin talked about it yesterday—which is a hybrid naloxone and cyclazocine.

Mr. KEATING. I have no further questions.

Chairman PEPPER. Just one last question. After the question asked by my colleague, Mr. Winn, if Congress would provide the money and designate the agency to spend it, we could establish the kind of leadership that you say would be desirable in this field; could we not?

Dr. VILLARREAL. I think so; yes.

Chairman PEPPER. Well, Dr. Villarreal, we are very grateful to you for your valuable testimony here and giving us the benefit of your views.

Dr. VILLARREAL. Thank you very much.

Chairman PEPPER. Thank you very much.

(Dr. Villarreal's prepared statement follows:)

[Exhibit No. 18]

STATEMENT BY JULIAN E. VILLARREAL, M.D., PH. D., ASSOCIATE PROFESSOR OF PHARMACOLOGY, UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

On the subject of drug dependence, as with many issues or human behavior, it appears as if everyone would willingly claim some insight into its nature, its causes, and its possible remedies. In the last few years we have seen how the great interest which our society has shown on this topic has led individuals with very diverse backgrounds to quickly become writers or speakers on the subject. It has even been considered by many that the most appropriate speakers on "drug education" programs for young audiences are either peers or only slightly older students. Not intending to demean the good will of those involved in these activities, it is necessary to call attention to the fact that many of us behave as if knowledge on the nature of drug dependence was very easy to come by, as if any reasonably intelligent person could form an acceptable picture of the phenomenon if he were to take the trouble to understand the chemistry of the drugs, their physiological and psychological effects, and their toxicities. Even some of the professionals show this same kind of attitude in studies where the causes of compulsive drug use are sought by simply interrogation of the drug users. The causes of drug-seeking behavior do not even appear accessible to the techniques of psychoanalysis which probe into events that were once repressed from consciousness. Analysis of the information we now possess does not give any indication that organisms have to have any kind of awareness of what is happening to them in the process of becoming drug dependent. The corollary of all this is that verbal probing and just thinking through the events in the histories of drug addicts is not likely to carry us very far in our attempts to understand and control drug dependence. Only work in the physical sense, experimental work, analysis by manipulation of causal factors, has allowed really solid advances in our knowledge of the relative importance of some of the factors which play roles in the generation and maintenance of strong self-administration behavior. Experimental work on drug dependence has also produced a technology which has predictive value and which has opened the way for analysis of neurophysiological and neurochemical mechanisms as well as for the possible development of therapeutic tools and effective treatment strategies.

The purpose of my presentation today is twofold: (*a*) to briefly review the most important accomplishments of laboratory work on narcotic dependence; and (*b*) to discuss the possible uses of the technology and the concepts which have emerged from this work for the purposes of developing rational strategies for the treatment of dependence as well as tools for a more effective management of narcotics addicts.

Laboratory work has a very long history of contributions to the problem of narcotic dependence. Chemists have synthesized thousands of narcotic analgesics with a wide variety of chemical and pharmacological characteristics—high or low solubility in water, short or long duration of action, effective when taken orally and when injected or effective only when injected, etc. Chemists, too, have synthesized a large number of narcotic antagonists, also with a wide variety of properties.

Laboratory work on the biological effects of narcotics not only led to the characterization of the actions of these drugs but to the emergence of the most fundamental concepts of the phenomenon of drug dependence. Clinical studies on addicts carried out as late as 1929 did not allow firm conclusions as to whether the withdrawal illness was due to organic or to psychological causes or even to simple malingering. In contrast, laboratory studies in animals led to the demonstration of the phenomenon of physical dependence to narcotics and of the physiological nature of the withdrawal illness.

The most important contribution of laboratory work to the analysis of dependence came with the development of techniques of drug self-administration in animals. Rats and monkeys are prepared in surgery with permanent intravenous tubes connected to motor-driven syringes containing a drug solution. The animals are then placed in a chamber where they can give themselves drug injections by pressing on a bar switch.

With these techniques a large number of drugs have been shown to generate and maintain self-administration in animals: morphine, dihydromorphinone, codeine, meperidine, methadone, etonitazone, pentazocine, profadol, hexobarbital, pentobarbital, phenobarbital, chlordiazepoxide, ethanol, chloroform, diethyl ether, lacquer thinner, cocaine, *d*-amphetamine, methamphetamine, phenmetrazine, SPA, methylphenidate, pipradol, caffeine, and nicotine.

All the drugs tested in monkeys which generate persistent compulsive self-administration behavior in man also generate strong self-administration behavior in the monkey. Conversely, drugs tested in this species which are not known to be used compulsively by man do not induce self-administration behavior in monkeys: chlorpromazine, nalorphine, mixtures of morphine with nalorphine, levallorphan, and mescaline. This evidence of parallelism between monkey and man very strongly suggests that we are dealing with the same phenomenon in both species, what we call psychological dependence in humans and what we see as sustained self-administration in animals.

The parallelism between animals and man is shown not only with regard to their respective responses to specific drugs; the patterns of self-administration for different drugs are also similar. As in man, the self-administration of opiates by rhesus monkeys is a very steady form of behavior which is remarkably stable over very prolonged periods of time. Amphetamine-like stimulants, in contrast, generate very irregular patterns of self-administration in both rats and monkeys. Human addicts on these drugs similarly show irregular cycles of drug use and abstinence.

These findings of animal experimentation on drug dependence have placed the phenomenon of drug-seeking behavior in a completely new perspective. The laboratory investigator is much less prone than his clinical colleagues to project personality and character disorders into his animal subjects as the basis for drug-seeking behavior. The fact that "simple-minded" animals show very much the same behavioral response to drugs which are self-administered indicates that we do not need to invoke attributes peculiar to the psychology of man to account for drug-seeking behavior. With rats and monkeys there are no generation gaps, no identity crises, and no desperation because of the evils of society. Also, animal experimentation has shown that in the face of maximum availability of drugs individual differences in the tendency to self-administer drugs are wiped out. All monkeys that are given full access to morphine and other opiates or to cocaine will develop the predictable patterns of strong self-administration behavior. In this light, the differences between human drug users and non-users may turn out to be primarily differences in access to drugs for self-administration, differences in the tendency to do the initial experimentation which will allow the drug to exert its predictable behavioral effects, or differences in the strength of competing behaviors which are incompatible with drug use.

With these techniques, it has been demonstrated that the treatment with effective doses of narcotic antagonists will block the self-administration of opiates by animals that have full access to these drugs. It is highly likely that the narcotic antagonists will also block the behavioral impulse to take narcotics in human addicts. However, many important aspects of these behavioral effects of the antagonists remain to be systematically explored; that is, the effects of low doses of antagonists, the effects of intermittent rather than continuous antagonist treatment, the question of whether or not animals given insufficient doses of antagonists will work to obtain more opiate to surmount the effect of the antagonist, and so forth. It is to be hoped that these investigations coupled with appropriate studies in man will lay the groundwork for the design of effective treatment schemes for human addicts.

It appears that one of the most important requirements of this form of treatment will be the maintenance of continuous levels of the antagonist around the clock. We do not have yet a preparation of antagonist drugs that will conveniently allow the meeting of the requirement of continuous coverage. However, sources working under contract with NIMH are attempting to develop slow-release preparations which might maintain effective tissue levels of antagonists for periods of at least several days.

There are a number of very potent narcotic antagonists, most of which are sitting idly on the shelves of private pharmaceutical houses. Potent narcotic antagonists have only a small market in their established medical use (as antidotes for narcotics overdose). The potential market for the use of antagonists in the treatment of narcotics addicts is not very large either. Furthermore, it is uncertain what fraction of the total population of addicts might be amenable to long-term control with antagonists. We have, then, a good number of substances that are good candidates for development as tools for the treatment of addicts. Yet, we cannot expect private drug industry to take the initative in these endeavors.

The responsibility for this research and development work has fallen in the hands of those of us interested in the solution of the problem of narcotics dependence. Unfortunately, separate groups of investigators working in a loosely coordinated way cannot be expected to have the efficiency, all the practical knowhow, and the wide variety of resources which drug industry has available for new drug development.

It is to be hoped that the efforts of investigators currently working on the development of antagonists for the treatment of narcotic dependence would become formally organized and formally supported by those agencies in government that have responsibilities in the area of drug dependence. Private drug industry should also be encouraged to participate in these efforts, if necessary through formal arrangements such as government contracts.

Chairman PEPPER. The committee is pleased now to call as the next witness Dr. Albert Kurland, director of the Maryland State Psychiatric Research Center in Baltimore.

Dr. Kurland holds a medical degree from the University of Maryland. He is a certified board psychiatrist, a fellow of the American Psychiatric Association, a member of the American Medical Association, the Society of Psychophysiological Research, the Council on Medical Television, and a long list of other professional societies and committees.

Dr. Kurland has recently received a grant of more than $66,000 from the National Institute of Mental Health to conduct a controlled study of the narcotic antagonist naloxone, and its effectiveness in treatment of the narcotic drug abuser. Over nearly a 2-year period, Dr. Kurland has been administering naloxone to approximately 75 parolees from Maryland correctional institutions. This preliminary research has been supported by State and private funds.

Dr. Kurland is here to advise the committee on the current status of his research, its success thus far in rehabilitation of herion addicts, and the prospects for broader application of this nonaddictive treatment approach in the future.

We are very much pleased to have you with us today, Dr. Kurland.

Mr. Perito, will you inquire?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Kurland, you have presented us with a rather extensive statement. Would you care to offer that statement at this point for the record?

STATEMENT OF DR. ALBERT KURLAND, DIRECTOR, MARYLAND STATE PSYCHIATRIC RESEARCH CENTER, ACCOMPANIED BY WILLIAM McCOY, AND ROBERT TAYLOR

Dr. KURLAND. Yes; I would.

Chairman PEPPER. Without objection, it will be received.

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Kurland, I understand you have brought with you some of the participants in your program; is that correct?

Dr. KURLAND. That is correct.

Mr. PERITO. Would they care to sit with you during your presentation?

Dr. KURLAND. I will be glad to have them.

Mr. PERITO. Could you kindly introduce them for the record, as you see fit, please.

Dr. KURLAND. Yes, sir. Before I introduce these clients, I would like to make a brief statement in addition to what you have in the record. I might say that with the great interest that this committee has expressed in naloxone, that this interest is well founded, that we do have here an agent that we have seen, from the clinical standpoint, offers potential clinical promise if certain difficulties can be resolved, could immediately be made available to large populations of narcotic abusers. This approach, in my opinion, may be one of the most effective means we have for coping with this disorder.

I think if properly utilized, naloxone may even surpass the use of methadone and furnish a much more effective means.

The basis for this strong position arises from a 10-year clinical research effort that began with an evaluation of narcotic addicts and narcotic abusers admitted to a State psychiatric hospital and the reaction to the medical services provided.

The experiences in this initial undertaking indicated that this was, expressing it very charitably, except for detoxification, apparently a waste of medical resources.

This led to our next step in studying this type of patient and this was their evaluation in an outpatient setting. In this approach, attention was focused on individuals coming out of correctional institutions with a history of narcotic abuse to determine their narcotic abuse patterns.

This is not the kind of a research that wins anybody a Nobel Prize. It is very mundane, very unimaginative, but very basic in identifying the patterns of narcotic usage. In this endeavor, we were fortunate enough to obtain support from the NIMH who supported the project for a period of 5 years. Subsequently, additional support was provided by the State of Maryland and Friends of Psychiatric Research, Inc., a nonprofit organization.

Chairman PEPPER. What has been the total amount of money?

Dr. KURLAND. The total amount of money involved was approximately half a million dollars over a 5-year period.

In the course of research we admitted several hundred parolees from the correctional institutions of Maryland with histories of narcotic abuse. These were released to this experimental program which provided aftercare primarily in terms of abstinence and daily monitoring of urine testing, plus psychotherapy provided in a weekly group psychotherapy meeting.

The gentlemen on my left and right are individuals who participated in such a program and shortly will give you some of their impressions on the benefit of their experiences.

In the survey of just exactly what happened to these individuals, following their release from a correctional institution, we learned that 85 percent of these individuals will reexpose themselves to a narcotic experience within 12 weeks after release from a correctional institution despite the fact that they face the possibility of being returned to jail.

In exploring this matter further we also learned that despite the fact that 85 percent will reexpose themselves to a narcotic experience, there were only 15 percent that indicated so little control that they immediately relapsed into continuing drug use that necessitated their immediate removal from the program.

The great majority attempted to cope with this need for or urge for drugs through intermittent episodes of exposure and then becoming abstinent for a varying period.

As we became acquainted with this pattern of behavior and sought more effective therapeutic means for coping with this disorder, we were very fortunate in becoming aware of some of the experiments with naloxone being carried out by a New York group of researchers under the leadership of Drs. Max Fink and A. M. Freedman, who had learned that large doses of naloxone, namely, between 2,000 and 2,500 milligrams, administered on a daily basis, would provide a total blockage lasting for a period of 24 hours. However, this raised a very formidable problem because of the costliness and scarcity of supplies of the naloxone handicapping expanded investigation.

Since our investigations had outlined some of the patterns of the episodic and intermittent usage, it was suggested, in view of the scarcity of naloxone, that a compromise might be effected by utilizing a system of low dosage, although this yielded only partial blockade.

Employing this approach, it was learned that the low dosage blockade did not appear to achieve a greater level of retention than abstinence alone in retaining individuals in the program. The longer the individual was retained in the program, the more meaningful this was felt to be. The hypothesis had been that a dosage range of between 200 and 800 milligrams, given only at night, would blockade the evening hours, a time when these individuals were considered to be most vulnerable to drug usage since all were required to maintain a job as a condition of their parole.

We found in the course of the pilot study that we could administer the naloxone either up or down the scale of dosage very quickly without any ill or particular disturbing effects on the patients, although the effects were short lived; namely, 3 to 5 hours. In the course of this treatment many of the individuals soon learned to bypass this period of time through their self-experimentation, discovering if they gave the drug beyond this time interval they could still get their high.

As we reviewed the results of the pilot investigation and totaled the dosages of naloxone that had been used in this experiment, we discovered if we had taken the same dosage and given this total dosage just as those points in time when these individuals had experienced a stress—resorted to drug usage—it would perhaps been more meaningful to have used the naloxone in a manner similar to that used for penicillin.

When an individual resorted to opiate usage, as revealed by daily monitoring, and this extended over a period of 2 or 3 days, the blockade would be carried out with an administration of high dosage, 2,500 milligrams, until he once more became abstinent. Usually this could be anticipated to occur within a period of 2 or 3 days, with the individual once more continuing his abstinent course.

We feel that with adequate supplies of this drug that we could approach this disorder on the same basis we deal with an infection; that is, as the individual reached a point where he was exposing himself to drugs he would, at this time, be administered sufficient naloxone to provide him with total blockade and the naloxone discontinued with the return to abstinence. Following this, there might be another period of weeks or months before reexposing himself again. You must remember, we are dealing with a chronic disorder which, as yet, we do not know how to treat effectively, nor do we know what causes this disorder.

With that brief introduction, sir, I would like to turn to some of the gentlemen accompanying me who have been kind enough to volunteer to express their thoughts and feelings.

Chairman PEPPER. Would you care to give their names or would they prefer not to?

Dr. KURLAND. They indicated a willingness to present their name and identify themselves. I will start with the gentleman on my right and this is Mr. McCoy.

STATEMENT OF WILLIAM McCOY

Mr. McCOY. My name is William McCoy and I have been an addict for over 25 years. I have been in and out of different institutions going back to the year 1939. And up until recently I have never been given a chance on parole or anything of that nature as far as helping me or having any ideas of wanting to help myself. Dr. Kurland and his program started the thing about taking addicts out of the institutions on an outpatient basis, and I was accepted on this because of the fact that I showed potentials of wanting to leave drugs alone.

Now, when I first came home, for the first month or two, I did very good and then an incident happened about a friend of mine that got killed and I went back into a rut and for about a period of 3 or 4 months I went back to drugs.

Then I volunteered for this naloxone program and I stayed on that for a period of 6 months and as of the present date I have been drug free for over a period of a year and have not had the urge to take drugs nor do I want drugs any more. And personally speaking, I say that this medicine, naloxone, has shown to me that it is a good deterrent for the usage of the drugs because the first night I had taken the naloxone I had drugs in my system and 5 minutes after I had taken it, it made me ill. I threw up all the drugs, brought the drugs out of my system, and I began to realize if I were to continue to take naloxone, then I would be a fool to inject heroin or any other opiate into my system when I would not get any feeling out of it. So, I left it alone completely.

I have been working the past 2 years and have not had any problems. It would be foolish of me to go back to drugs and I strongly advise that something be done to make the use of naloxone available to the general public, because, personally, I believe it could be very useful. It has been useful to me.

The CHAIRMAN. Mr. McCoy, that is an exciting statement you have just given and we commend you upon it.

Was the administration by a doctor or at a clinic, Dr. Kurland?

Dr. KURLAND. It was at our clinic. We have a special narcotics clinic that is operated by Friends of Psychiatric Research, Inc.

Mr. PERITO. Would the other witness like to make a statement?

Dr. KURLAND. Mr. Taylor.

STATEMENT OF ROBERT TAYLOR

Mr. TAYLOR. I was using drugs since 1968.

Mr. PERITO. Do you mean heroin?

Mr. TAYLOR. Heroin. And after my incarceration, I did not, you know, really want to come to the narcotic clinic but after hearing about the naloxone, it gives you a draw, it stops the blockage. You want that desire. So, I got on the program and when I came out, I used it but I did not feel it.

Mr. PERITO. You mean you were taking naloxone and then you shot heroin but you had no pleasant feeling?

Mr. TAYLOR. No feeling. I think I shot about four bags and did not feel it.

Mr. PERITO. And you continued to keep taking naloxone?

Mr. TAYLOR. Yes; I did.

Mr. PERITO. How long have you been taking naloxone?

Mr. TAYLOR. I am off of it now. Maybe a year. I just recently got off.

Mr. PERITO. Were you detoxified on methadone?

Mr. TAYLOR. No.

Mr. PERITO. You were not.

Dr. KURLAND. May I interject a remark here? Have either of you gentlemen been on a methadone program?

Mr. TAYLOR. No. Never been on it.

Mr. MCCOY. No; I have not.

Chairman PEPPER. So naloxone was not only a blockage drug but it was a detoxicant.

Dr. KURLAND. No. I have to correct something there, Mr. Chairman, and the correction is this, that these people came out of jail, correctional institution, came right into the program.

Mr. BRASCO. May I ask this one question to the gentleman on the left who said that he had taken naloxone for 6 months. Are you using it now?

Mr. MCCOY. No.

Mr. BRASCO. You are not using any drug now?

Mr. MCCOY. Not using any drugs.

Mr. BRASCO. You have been drug free for over a year.

Mr. MCCOY. Drug free for over a year.

Mr. BRASCO. Very interesting. Thank you.

Mr. PERITO. Dr. Kurland, do you see the possibility of developing naloxone in the form of a vaccine?

Dr. KURLAND. It would not be necessary in my opinion, and I would like to elaborate on that for a few minutes, if I may.

As you just heard, we used a low system dosage application here and in many of the individuals it does not work because they override the system and it breaks down because they do not have the capability or cannot muster the self-disciplinary resources that these two individuals have been able to do. The indications are that naloxone might be used much more economically and effectively than employed in our initial experimentation. This would be the administration of the medication only at those times when the individual is exposing himself to drug use, which is readily revealed by the urine analysis. At such times the subject would be administered a dosage yielding the 24-hour blockade.

The major problem at this time relates to the supply of naloxone and I would like to indicate what the difficulty is. Naloxone is made from a substance called thebaine. Thebaine is a substance obtained in the processing of opium, although itself, not an opiate. In this country we process about 200 tons of opium per year for medicinal purposes through licensed pharmaceutical firms. In the processing of opium there is obtained about 1,500 kilograms of thebaine. It is from this substance that naloxone is synthesized and also creates the limit of use. I might say, in defense of the drug company supporting this research, that they have been very supportive of this effort, although other investigators have had difficulty in this area because of the necessity of restricting the use of the limited supplies available.

Mr. PERITO. Doctor, excuse me, are you aware of any research going on? Dr. Eddy informs our committee that there is some research going on to develop and synthesize a drug which comes from an opium—a poppy plant—which does not produce poppy pods or opium pods. Are you aware of that?

Dr. KURLAND. Yes. There are some plants that have a high content of thebaine and it is the hope that such plants ultimately might be grown in this country, and I would recommend to this committee that they interest the Department of Agriculture to pursue this objective because this is a very important element in this approach to developing the narcotic antagonists. It is known that such plants grow in Iran and contain a high content of thebaine in their roots. These plants, although members of the poppy family, themselves do not produce any opium compounds.

Mr. PERITO. Do you believe that an accelerated research program in that area could bear fruit?

Dr. KURLAND. In my opinion, such an approach should have the highest priority because I feel we have an extremely effective agent here in coping with this disorder and we have gleaned enough experience to know that we are on the right track here.

Chairman PEPPER. Doctor, we thank you very much for that and we will look into it immediately.

(The following letter was received for the record:)

[Exhibit No. 19]

Department of Agriculture,
Office of the Secretary,
Washington, D.C., July 23, 1971.

Hon. Claude Pepper,
Chairman, Select Committee on Crime,
House of Representatives.

Dear Mr. Chairman: This is in reply to your letter of June 29, requesting information on plant sources of the alkaloid thebaine. We are pleased to learn that thebaine may prove to be a useful antagonist to heroin and its effects on the human body.

As far as can be determined, thebaine occurs only in species of the genus *Papaver* (poppies). The Great Scarlet Poppy (*P. bracteatum*), the Oriental Poppy (*P. orientale*), the Corn Poppy (*P. rhoeas*), and the Opium Poppy (*P. somniferum*) all contain thebaine in amounts varying from several tenths of 1 percent to over 4 percent of the air-dried milky exudate. All of these poppies have been grown in parts of the United States. The Corn Poppy and the Oriental Poppy are popular garden ornamentals.

This Department has no research underway on these plants as sources of thebaine. Adequate seed supplies are available for experimental plantings. Should medical evaluation indicate an expanded need for thebaine we would be pleased to undertake production research on the source plants.

Information from the literature indicates that thebaine is much less narcotic than morphine but in large doses may produce convulsions and damage to peripheral motor nerves in laboratory animals. Perhaps recent pharmacological research has established safe dose regimens. If so, we could not find literature references to this effect. We have no basis for judging the potential effectiveness and usefulness of thebaine in the fight against drug abuse.

Please be assured that this Department stands ready to assist your committee in any way possible.

Sincerely,

N. D. Bayley,
Director of Science and Education.

Chairman Pepper. Proceed, Doctor.

Dr. Kurland. I will be brief. I suppose I will summate my position at this point.

We have a very useful agent here. It has come out of the laboratories, in this particular case out of the Endo Laboratories. They have been confronted with a number of difficulties in utilizing these compounds but they have—as you have heard Dr. Villarreal indicate that there are other compounds available—and we have learned how to use these more effectively. We have also learned about the patterns by which individuals use drugs.

Chairman Pepper. Doctor, did these two gentlemen or any other of the people with whom you work have any side effects that were injurious from taking the naloxone?

Dr. Kurland. Every drug has some side effects. The side effects we noted in these particular patients are based on the 75 that we have evaluated over this 20-month period. Some of the patients will complain, for example, of a loss of appetite for a period of time or they will complain of feeling somewhat dizzy or—we have noticed in one or two patients—they have complained of nosebleeds, but this has been the most serious finding we have run into and I do not know whether this is really due to the drug per se, because these individuals, you must remember, may be taking other drugs from time to time.

Chairman PEPPER. Has the Food and Drug Administration approved the use of naloxone?

Dr. KURLAND. It has only recently released this drug specifically as an antidote for morphine or opiate poisoning, but not for an agent the way we are using it. This is only on an experimental basis.

Chairman PEPPER. Not for maintenance?

Dr. KURLAND. No.

Chairman PEPPER. Thank you. Go right ahead.

Dr. KURLAND. In my opinion, I would like to recommend to this committee that they give very strong consideration to developing the means for making this drug more available and to establish a high priority research group to specifically take this material and explore it as actively and as aggressively as they can clinically.

Chairman PEPPER. Doctor, I would like to ask each of the gentlemen with you, would each of you please tell us what caused you to volunteer for Dr. Kurland's program?

Mr. McCOY. Well, sir, mainly I wanted freedom out of the institution. When I was first offered the possibility of making parole if I were to join some type of self-help program which would encourage me to stay away from drugs I said, well, I will take the chance on it, because while in the institution, I was instrumental in organizing a self-help organization down at the Maryland House of Corrections, which has been fundamental in getting quite a few addicts back on the road to the right type of life, and I saw this as a stepping stone toward helping myself, so I made plans of that nature.

Chairman PEPPER. What would the other gentleman say?

Mr. TAYLOR. I was in Hagerstown and through a therapy group, my classification officer, we talked about it. I did not really want to get on the program but after discussing it, I found it would be the best thing and I went on through with it and it is coming along pretty good. I feel that I really enjoy it. I enjoy most of all the therapy.

Chairman PEPPER. One other question of you gentlemen. We have heard stories that heroin and other drugs are available for inmates in correctional or penal institutions. Were drugs procurable in the institutions in which you gentlemen were confined?

Mr. McCOY. Yes, sir; to a very high degree. It was to a very high degree.

Mr. TAYLOR. To a small extent in Hagerstown; yes.

Dr. KURLAND. I would just like to add one more comment to the discussion on naloxone.

The thing that also intrigued us about this particular compound is that it may be very useful in the younger addict for whom there is a lot of concern about putting him on a drug such as methadone, and this is also one of the factors that directed our attention to it early in our investigation.

Chairman PEPPER. Mr. Steiger.

Mr. STEIGER. Thank you, Mr. Chairman.

Mr. McCoy, I gather from Dr. Kurland's remarks and yours, that once you got on this program, you checked in, at least for a certain period of time, on a daily basis into the clinic and among other things, you had a urine test and then they talked to you. Is that the way that worked?

Mr. McCoy. Yes; when you first come out you have to go continuously for 7 days a week until you earn credit days off and one night a week you have therapy with a psychiatrist up there.

Mr. Steiger. Discussion.

Mr. McCoy. That is right.

Mr. Steiger. Mr. McCoy, you are aware, I suspect, that there are lots of ways to beat the urine sample. We have had testimony as to all kinds of devices for masking the urine—take bicarbonate of soda, use somebody else's urine in a syringe.

Mr. McCoy. Well, sir, at that point I would say that is highly impossible because of the way the thing is situated. You have mirrors on all sides of you and you have an attendant with you all the time, and he practically holds your private while you put it into the jug.

Mr. Steiger. Incidentally, is the naloxone injected?

Mr. McCoy. No; it is four tablets. You take them with a small cup of water.

Mr. Steiger. When you had taken the naloxone, did you ever try any speed or cocaine?

Mr. McCoy. Never.

Mr. Steiger. Or anything else?

Mr. McCoy. Never had the urge for it.

Mr. Steiger. Do you know of any other fellows on the program who tried anything else, besides heroin?

Mr. McCoy. Yes; they tried other things but they became ill. They became ill. They did not get any feelings from whatever they injected.

Mr. Steiger. They did not get a high?

Mr. McCoy. No; they did not. The only thing, they became ill. As I previously stated, I had drugs in my system the night they gave me my first dose of naloxone and 5 minutes after that I became ill and threw it all up.

Mr. Steiger. Is that a typical reaction with naloxone as far as you know, or perhaps Dr. Kurland could better respond to this. In addition to being unable to achieve a high, is there a generally nauseating effect if you have naloxone in the system and you take heroin?

Dr. Kurland. It is a very interesting question that you ask, sir. One of the things we learned in the experimentation is that those individuals who were bypassing the 5-hour period, say, and taking the drugs, if they continued to take drugs for a period of 3 or 4 days, the naloxone precipitated a withdrawal reaction of moderate intensity in the individuals and this was completely an unexpected finding from our standpoint.

Mr. Steiger. Even while they were on the drug they were getting some mild withdrawal symptoms.

Dr. Kurland. If they continued to take opiates every day. For example, if we gave the drug between 6 and 9 in the evening, which we always did, and they took the drug, say, the next morning they might get a high but if they continued to take the drug every morning, say, for 3 or 4 days, then a withdrawal reaction was precipitated in which they became nauseated, vomiting, chills, some perspiration, felt jittery, and they identified it as a moderate withdrawal reaction.

Mr. Steiger. Mr. McCoy, do you know of any illegal traffic in naloxone? Can you buy it on the street at all as far as you know?

Mr. McCoy. No; I do not think you can because it has not been released to the general public for usage yet.

Mr. STEIGER. Do you feel from your past experience that this would be a problem in that it might achieve a popularity in the street?

Mr. McCOY. No, I do not think it would create a problem in the street because those that want to stay on drugs would not want to use anything that would stop them from using drugs.

Mr. STEIGER. That is a very reasonable answer. I wonder in your opinion, if it it would be necessary to have more than just a casual desire to get off drugs in order to be successful participants in this program. In other words, it takes either somebody who is less hooked, who does not have a real heavy habit or who really wants to get straight; would he be the most likely to be successful under this particular program?

Mr. McCOY. Well, it depends upon the willingness of the person himself to get away from it.

Mr. STEIGER. I will ask the question this way: From the hard addicts that you may have known, would you say that if you could get them started on this program, there would be as much likelihood of success there as it would be from somebody who really wanted off?

Mr. McCOY. Well, owing to the fact of personal experience after using drugs for 25 years myself, I would say if you can take a person like me, if he really wanted to get off, I see possibilities of this being a good chance for him.

Mr. STEIGER. Dr. Kurland, did you have anybody else who had the extensive experience of Mr. McCoy. Were there others who had that long a history of addiction in your program?

Dr. KURLAND. Yes, we have; and we have had our successes and we have had our failures. As I mentioned earlier, we were working with a low-dosage system. We could not apply the drug in a manner that we would have liked to as we know now, and this is the next crucial experiment that has to be carried out in this continuing investigation, plus the fact there was another element; namely, these were patients, these were parolees, over whom mandatory control could be exercised.

In a program where there is voluntary admission, I do not think that the program would be as acceptable because where individuals have a free choice, the first drug would be heroin, the second, methadone, and naloxone would be last.

Mr. STEIGER. If I understand correctly, if anybody in this program now who has reached the stage, say, of Mr. McCoy, where he has been clean for a long period of time, if he feels a stress situation or feels the need, is he free in this particular program to request naloxone?

Dr. KURLAND. I will let Mr. McCoy answer that.

Mr. McCOY. I would like to clarify that by saying when I was first released on parole I was released on complete abstinence. I was not taking any type of drug and I started deviating while I was out, so I personally volunteered myself for the naloxone program. They did not ask me. I volunteered to keep from going back into this rut. I heard it was something helpful and useful to the addicts, so I went to my therapist and said could he tell my counselor and see if I could get on this program because I was going back to drugs and I did not want to get back to it.

Mr. STEIGER. If now, for some unknown reason, you should feel the need, could you get the medication now upon request?

Mr. McCoy. I believe I could if I asked the doctor or my therapist, if they saw fit that I really needed to go back on it.

Mr. Steiger. Is that the situation, Doctor?

Dr. Kurland. To a certain extent that is correct, but it also depends upon the supplies of naloxone, and we hoard that. It is more precious right now than gold.

Mr. Steiger. Thank you very much.

Chairman Pepper. Mr. Kurland, we want to thank you. I think your testimony this morning vividly shows that a lot of things can be done if we just provide the money and the people to do them. You give us encouragement.

Mr. McCoy, Mr. Taylor, we want to thank you gentleman or coming and we want to commend you for the motivation that has led you to take advantage of this program of Dr. Kurland's and get yourself free of drugs. We pray you will stay free of it and you will give your experience to as many others as you can and encourage them to follow your example. Thank you.

(Dr. Kurland's prepared statement follows:)

[Exhibit No. 20]

Prepared Statement of Dr. Albert A. Kurland, Director, Maryland State Psychiatric Research Center

It is assumed that the members of the Select Committee on Crime of the House of Representatives, on the basis of its previous hearings, are quite familiar with the many aspects of the abuse of narcotic drugs and the destructive effects on the social fabric that accompany this activity, and briefly state my own position relative to the medical approaches seeking to cope with this abuse. Essentially, it agrees with that of most authorities that the traditional techniques of psychiatric treatment have not been particularly effective in the management of opiate dependence and there is a need for more effective therapeutic measures. In pursuit of this objective, this investigator (see attachment No. 1), has carried out a series of clinical studies of the narcotic abuser. The first of these initiated in 1960, began with the survey of the course followed by narcotic addicts admitted on either a voluntary basis or by order of the court to a State psychiatric hospital. This survey reemphasized the unrewarding accomplishments of hospitalization, except for detoxification (see attachment No. 2). Because of these findings there was carried out a second study exploring the possibility of managing the detoxified narcotic abuser over whom mandatory supervision could be maintained in an outpatient setting, employing abstinence combined with a system of daily monitoring.

The statistical data obtained from the study (see attachment No. 3) indicated that a population of parolees with a history of narcotic abuse, if promptly confronted with evidence of their illicit use of opiates, would respond to their being challenged. The magnitude of this response was indicated by a retention rate in which approximately 35 percent of the participants remained in the program for a period of 6 months or longer. Moreover, if one eliminated the absconders from the program as being poorly motivated, as indicated by the lack of evidence of opiate usage at the time of their flight, the retention rate approximated 50 percent (see attachment No. 4). The data also revealed a total of 23 new arrests in this population of approximately 400 parolees during the period of their participations. When the nature of this population is considered, this was felt to be a rather encouraging finding.

Although there was a strong desire to compare the statistical information with the data being obtained from methadone programs, this had not been possible for a number of reasons. This was the absence of such information on a comparable population of subjects with no possiblity of obtaining such information in the foreseeable future. This arose from the formidable issue that such attempted comparison would have posed ethically. In our opinion, it would have been quite objectionable to have placed a population of parolees, who had been rendered abstinent as a result of their incarceration, back on a program of methadone maintenance immediately on their release to the free society.

In this second study there was another observation which aroused considerable attention and related to the fact that only a small proportion of the population, approximately 15 percent, quickly relapsed into a level of narcotic use suggesting an inability to contain their use of narcotics within the first 12 weeks on the program, out of the approximate 85 percent who had exposed themselves to an incident of narcotic usage within the first 12 weeks on the program. The fact that 85 percent of the subjects out of the population with a history of narcotic abuse and a life style indicating a pattern of highly recidivistic behavior were making some effort to contain their usage of narcotic drugs, led to an exploration of the possible usefulness of the administration of a narcotic antagonist in coping with these flareups of episodic usage and resulted in initiation of the third study. In this third study the course was pursued of superimposing the use of a narcotic antagonist in the abstinence program employed in the second study.

The factors leading to the selection of the particular narcotic antagonist, naloxone, and our understanding of these substances, will be most briefly reviewed for the members of the committee before proceeding. The pharmacological history of the narcotic antagonists began with an observation by a German pharmacologist, Pohl, in 1914. In investigating the effects of the substitution of an allyl for the methyl group on the nitrogen atom of codeine, the resulting compound, N-allylnorcodeine, was found to antagonize the effects of morphine. The significance of this observation, namely, the antagonism of the respiratory depression caused by morphine, and the accompanying arousal that occurred when this compound was administered to animals made lethargic with morphine went unnoticed for almost 30 years. In the early 1940's, planned research, based on the thought that there might be combined within the molecule of a narcotic compound, itself an essentially depressant structure, a moiety which was independently a stimulant enabling one property to counteract the other, led within a few years to the confirmation of the existence of compounds with specific opiate antagonism. The first product of this endeavor with clinical significance was the synthesis of N–allylnormorphine (nalorphine).

As an antagonist, nalorphine was found to be much more potent than its predecessor compounds. The presence of this antagonistic action led to its investigation in medical treatment as an antidote for overdosages of morphine and morphine-like drugs with life-saving results. Subsequently, it was found that nalorphine administered to an animal or man who had been made dependent on morphine promptly precipitated an acute abstinence syndrome. This observation in turn led to the investigation of nalorphine as a test for narcotic usage, "the Nalline test," extensively used in California.

The clinical importance of nalorphine inspired chemists to seek even more potent clinical analogues of these compounds with the result that by the 1960's there was synthesized such compounds as levallorphan and naloxone (see attachment No. 5). In the midsixties, other classes of compounds—not as closely related to each other as the above—such as cyclazocine, were found to have antagonistic properties. With the continuing pharmacological and clinical investigations, their comparative effects began to reveal their advantages and disadvantages. Among the disadvantages in the chronic administration of some of these compounds was their potential for inducing some degree of physical dependence of their own, sedation or dysphoric effects, which were governed by the narrowness of the dosage range between the level of their therapeutic effectiveness and the onset of their toxic symptoms. There was also the incidence of serious side effects resulting from their initial administration; the effect of patients attempting to skip a day or two as they resorted to the illicit use of an opiate; and the effects resulting from the withdrawal of the particular antagonist employed.

From the standpoint of these potential hazards, naloxone appeared to be one of the safest compounds and a pure antagonist, as revealed by the clinical studies of Max Fink and his coworkers. With naloxone there has been remarkable absence of troublesome side effects which have been associated with the use of other antagonists, such as nalorphine and cyclazocine. Their side effects have ranged from psychotomimetic-like experiences to the feeling that one's thoughts were following an uncontrolled racing course. Other manifestations of their dysphoric impact have been an increased sense of impending death. On occasion the dysphoric effects have been sufficiently disturbing and have occurred with a frequency that made repeated administration difficult. Moreover, with both nalorphine and cyclazocine there was some indication that discontinuation of these drugs was associated with some degree of physical discomfort. However, Fink's studies had also revealed a number of serious logistical obstacles to the use of naloxone as a narcotic antagonist. This was the relatively high oral dosage required, namely

2,500 milligrams to obtain a 24-hour blockage and the problems this raised as to the supply of the drug and its cost.

Nevertheless, despite these formidable obstacles, its pure antagonistic properties suggested that naloxone might be effectively employed in reduced quantities utilizing a system of partial blockade. This became the subject of the third study, a pilot investigation in which the administration of a dosage of 200 milligrams on a prophylactic basis was administered in the evening hours between 6 and 9 p.m. On those occasions when evidence of opiate usage was found, the dosage was increased to 800 milligrams. It was hypothesized that this dosage although only providing a blocking effect for a period of 3 to 5 hours would nevertheless neutralize the effect of opiate drugs administered during that part of the day in which the individual was particularly vulnerable to drug use; namely his leisure hours.

In this study (the third), a population of parolees participating in the abstinence program of the outpatient experimental clinic was utilized and over a period of 20 months (from September 1970 to May 1971), a total of 74 subjects were admitted to the study. Of these, 23 were those who had begun to display indications of an increasing relapse into episodic or intermittent opiate usage while on the abstinence program, and were facing the increasing possibility of being returned to a correctional institution because of this violation of their parole. A second group of 51 subjects was made up of those individuals coming directly to the program from a correctional institution, specifically selected because of their youthfulness and the generally poor prognosis they faced in the usual therapeutic effort at this period in their lives.

From among these 74 subjects a number of charts have been selected which portray the course that both the transfers to the naloxone program follow as well as the course pursued by those parolees admitted directly to the naloxone program. (See attachment No. 6.) Inspection of these data reflects some of the problems that are encountered in attempting to maintain these patients in this type of program. The overall impression from these pilot observations, employing a system of only partial blockade, was that those subjects who had begun to do poorly in the abstinence program and were transferred to the naloxone program as a whole had not done as well as those directly admitted to the naloxone program. On the other hand, when the direct admissions to the naloxone program were compared with the achievements of the regular abstinence program subjects, as reflected by the period of their retention in the program, there did not appear to be a difference whose magnitude appeared significant. Yet, when it is realized that this was a younger age group whose prognosis under ordinary circumstances would have been bleak, this shift develops increasing significance which is further emphasized by the fact that the system was employing only a partial blockade.

Over half (eight of fourteen or 57 percent) of the active patient population currently being maintained on naloxone have shown no positive urine tests. The range of program participation for these active cases is: 95 to 585 days; with the average ($\overline{M}$) length of participation was 274 days. Of the 51 patients admitted directly to the naloxone program, 16 (32 percent) possess an abstinent record as indicated by no positive urine samples. (However, in these 16 cases, despite no positive urine samples, four of these patients absconded from the program and two were returned to the correctional institution before completing parole.)

Despite the uncertainty of these findings, there was no uncertainty about the safety of the naloxone and the ease with which it can be administered (the dosage raised or discontinued) without any ill effects. The surprising observation was made that even in view of the subjects' awareness of the duration of the neutralizing effects of naloxone, which became rather common knowledge through their self-experimentation, there occurred, nevertheless, with the continuing illicit use of opiates over a period of a few days the precipitation of a withdrawal reaction of moderate uncertainty. This reaction was characterized by feelings of nausea, vomiting, cramps, jitteriness, and feelings of faintness which alerted the patient to the increasing hazard that he was facing. There was also a clinical impression that the continual administration of narcotic antagonists was in some manner delaying or attenuating the onset of a physical dependency reaction in those subjects who were resorting to the usage of narcotic drugs with increasing frequency. This impression arose from the observation of the mildness of the withdrawal symptoms in those parolees whose course had been suddenly interrupted in the program by the return to a correctional institution because of this violation of their parole.

These considerations and the necessity of providing increased clarity as to their significance led to the initiation of a fourth study—currently in progress. This study, a controlled one, has been initiated to determine precisely whether there were any significant differences between subjects maintained on a partial system of naloxone blockage; a group receiving a placebo; and a group attending the experimental clinic, but receiving neither naloxone nor a placebo. The results of this study will probably not be known for another 18 to 24 months.

Out of these endeavors there has begun to emerge yet another perspective as to the more effective use of naloxone. As had been indicated earlier, the previous study focused on the results of the parsimonious reduced dosage of naloxone producing a continuing partial narcotic blockade. It would appear that this system entails substantial amounts of naloxone usage as the drug is administered over extended periods of time. The plan suggested itself that it might be more meaningful to alter the therapeutic strategy by administering naloxone in high (24-hour) blockage dosage only at those times when narcotic usage occurs, and quickly terminating the administration of the narcotic antagonist when the subject once more reverts to abstinence. Such a total blockade extending over a 24-hour period in which the high producing effects of the illicit opiate administration is sought would be completely neutralized. This system of naloxone administration would be maintained until the stress-producing urge for the narcotic experience has been ameliorated and the individual once more resuming his abstinent course.

Obviously, a variety of responses to this form of therapeutic management may be anticipated. These would range from the individual who deliberately absents himself from the clinic in order to resort to his surreptitious administration of a narcotic drug, to the individual who responds dramatically to the protection provided by the narcotic antagonist as it carries him through a period of stress bringing about his urge for the narcotic experience. There is no reason to believe that the former consideration, namely the attempt to resort to unauthorized absences, cannot be dealt with promptly and effectively, particularly in programs entailing mandatory supervision. It can be anticipated on the basis of previous experience that the great majority of the subject population, despite their occasional relapses from abstinence, will be cooperative toward taking the naloxone medication. This cooperation in turn will be promptly rewarded by a prompt discontinuation of the naloxone as the individual displays his capacity to maintain abstinence.

With this possibility in view, a number of recommendations are being made to allow for a more vigorous exploration of the possibilities of employing this system of treatment. One is that a vigorous effort be instituted to make larger supplies of naloxone available to qualified clinical investigators in order that the exploration of its therapeutic application may be more actively pursued. In order to bring this about, it is recommended that a high priority be established for investigating ways and means for increasing the supplies of thebaine, from which naloxone is synthesized. With adequate supplies of naloxone it may be possible to manage large numbers of patients whose only alternative to an abstinence program at the present time is their maintenance on a narcotic drug such as methadone. With the ability to manage patient populations on programs maintaining a high level of abstinence, it may be that there will be opportunities for bringing about a rehabilitation of the narcotic abuser by minimizing the need for maintenance on a methadone program or the resort to illicit drugs. Moreover, it will also help to ameliorate a hazardous state of affairs of the sociopathic individual whose nefarious activities as a participant on a methadone program may only be enhanced with their resultant deleterious consequences to the social structure.

In conclusion, it is my impression that the narcotic antagonists, particularly naloxone, which may be a forerunner of even more potent compounds of this nature, hold a great deal of promise as a treatment modality, particularly in the individual against whom society has had to deal punitively because of the criminal activity associated with the procurement of drugs for his illicit use. The potential of these compounds, the antagonists, should be actively investigated by an increasing commitment of research activities in this area, with emphasis on their priority. Hopefully, as more ample supplies of these drugs are made available, an expansion of their clinical investigation can be carried out.

Attachment 1

Name.—Albert A. Kurland, place and date of birth: Wilkes-Barre, Pa., June 29, 1914.

Marital status.—Married, 1941.

Education.—Baltimore City College, 1932; University of Maryland, B.S., 1936; M.D., 1949.

Internship.—Sinai Hopital, Baltimore, Md., 1940–41.

Military service.—In the Armed Forces from 1941 to 1946. Positions held—Battalion surgeon: Office of the psychiatric service of the Valley Forge General Hospital. Attended the Army School of Military Neuropsychiatry at the Mason General Hospital. Awarded the Legion of Merit and the Combat Medical Badge.

Special training.—Electroencephalography (Army—1945), research fellowship in neuropsychiatry (Sinai Hospital, Baltimore, Md., 1946–47), personal analysis and attended courses at the Baltimore-Washington Psychoanalytic Institute (1947–49).

Positions held.—Psychiatrist part time in the mental hygiene clinic of the Baltimore Regional Office, Veterans' Administration (1947–49); staff psychiatrist, Spring Grove State Hospital, Catonsville, Md. (1949–53); psychiatric consultant, Fort George G. Meade, Maryland State Hospital (1950–51); psychiatric consultant, Aberdeen Proving Grounds, Maryland Station Hospital (1951–52); director of medical research, Spring Grove State Hospital, Catonsville, Md. (1953–60); director of research, Friends of Psychiatric Research, Inc., Catonsville, Md. (1953 to present); director of research, Maryland State Department of Mental Hygiene (1960–67); director, Maryland State Psychiatric Research Center, (1967–); assistant commissioner for research, Maryland State Department of Mental Hygiene (1967–).

Certification.—In psychiatry by the American Board of Neurology and Psychiatry, 1951. Fellow of the American Psychiatric Association, 1955.

Societies.—American Medical Association, American Psychiatric Association, Collegium Internationale Neuro-Psycho Pharmacologicum, Society for Psychophysiological Research, member, Council on Medical Television.

Societies.—Member, American College of Neurophyshopharmacology; member, the Maryland Society for Medical Research; member, NIMH, Committee on Clinical Drug Evaluation of the Psychopharmacology Service Center (July 1, 1963, to June 30, 1967)).

Research publications.—A total of approximately 150 have been published over the past 30 years.

Specific publications in the area of narcotic research up to the present time (10):

- Laboratory Control in the Treatment of the Narcotic Addict: Kurland, A. A., Ibanez, Ricardo, and Derby, I. M. Presented at 24th Annual Meeting of Committee on Drug Addiction and Narcotics, National Academy of Sciences, Washington, D.C., January 30, 1962.
- A Practical Application of Thin-Layer Chromatography in Urinalysis for the Detection of Narcotic Drugs: Kurland, A. A., Kokoski, R. J. Presented at third annual meeting of ACNP, San Juan, P.R., December 15, 1965.
- Urine Detection Tests in the Management of the Narcotic Addict: Kurland, A. A., Wurmser, L., Kerman F. and Kokoski, R. J. Amer. J. Psychiat., 122: Jan. 1966.
- The Narcotic Addict—Some Reflections on Treatment: Kurland, A. A. Maryland State Medical Journal, March 1966.
- Laboratory Control in the Treatment of the Narcotic Addict: Kurland, A. A., Wurmser, L., and Kokoski, R. J. Curr. Psychiat. Ther., volume 6: 243–246, 1966.
- Intermittent Patterns of Narcotic Usage: Kurland, A. A., Kerman, F., Wurmser, L., and Kokoski, R. J. Presented at fourth annual meeting of ACNP, Puerto Rico, December 9, 1966.
- The Deterrent Effect of Daily Urine Analysis for Opiates in a Narcotic Out-Patient Facility—A Two and One-half Year Study: Kurland, A. A., Wurmser, L., Kerman, F., and Kokoski, R. J. Presented at annual meeting. NAS, Committee on Drug Addiction, Lexington, Ky., February 16, 1967.
- Narcotic Detection by Thin-Layer Chromatography in a Urine Screening Program: Kokoski, R. J., Waitsman, E. S., Sands, F. L., and Kurland, A. A. Presented at annual meeting. NAS, Committee on Problems of Drug Dependence, Indianapolis, Ind., February 21, 1968.
- Morphine Detection by Thin-Layer Chromotography in a Urine Screening Program: A comparison of ion exchange resin loaded paper extraction with direct solvent extraction: Kokoski, R. J., Sands, F. L., and Kurland, A. A. Presented at 31st annual meeting of the Committee on Problems of Drug Dependence, NAS–NRC, Palo Alto, Calif., Feb. 25–26, 1969.
- The Out-Patient Management of the Paroled Narcotic Abuser—A 4-Year Evaluation: Kurland, A. A., Bass, G. A., Kerman, F., and Kokoski, R. J. Presented at 31st annual meeting of the Committee on Problems of Drug Dependence, NAS–NRC, Palo Alto, Calif., Feb. 25–26, 1969.

The Deceptive Communication and the Narcotic Abuser: Kurland, A.A. Rutgers Symposium on Communication and Drug Abuse, Sept. 3–5, 1969. Rutgers University, The State University of New Jersey, New Brunswick, N.J.

The Out-Patient Management of the Narcotic Addict: Kurland, A. A. In Perry Black (Ed.) Drugs and the Brain. Baltimore, Md.: The Johns Hopkins Press, 1969, pp. 363–370.

The Daily Testing of Urine for Opiates as a Deterrent to Opiate Usage. The Results of a 5-Year Study: Kurland, A.A., Kokoski, R., Kerman, F., and Bass, G. A. Presented at 32d annual meeting of the Committee on Problems of Drug Dependence, NAS–NRC, Washington, D.C., Feb. 16–18, 1970. (Published in 1970 Report, pp. 6719–6730.)

N-allyl-14-hydroxydihydronormorphinone (Naloxone) in the Management of the Narcotic Abuser. A Pilot Study: Kurland, A. A., and Kermai, F. Presented at the 33d annual meeting of the Committee on Problems of Drug Dependence, NAS–NRC, Toronto, Ontario, Canada, Feb. 16–17, 1971.

Attachment No. 2

[Reprinted From the American Journal of Psychiatry, vol. 122, No. 7, January 1966]

URINE DETECTION TESTS IN THE MANAGEMENT OF THE NARCOTIC ADDICT

(By Albert A. Kurland, M.D., Leon Wurmser, M.D., Frances Kerman, R.N., and Robert Kokoski, Ph. D.)

The focus of this study was the data originating from the daily analysis of urine of narcotic users being treated in an inpatient and outpatient setting. This information has provided impressions suggesting certain treatment approaches which may provide for their more effective management. The inpatient group was made up of court-referred narcotic addicts and patients seeking voluntary admission to the Spring Grove State Hospital because of narcotic addiction. The outpatient group was made up of parolees from the correctional institutions of Maryland who had been penalized for their use of narcotics.

The background and history of the role of laboratory control in the supervision of the narcotic addict are relatively brief. Until 10 years ago the only means available to the clinician for ascertaining the addict's use of narcotics were his clinical observations and complex, time-consuming laboratory procedures for analyzing urine for narcotics.

The introduction in California of nalorphine testing (the measurement of a pupillary response following the administration of a single dose of this drug) in 1955 as a medicolegal procedure in testing convicted narcotic users on parole or probation to determine their abstinence from narcotics opened up a new approach in the attempts to control the ingestion of narcotic drugs (*5*, *6*, *7*). By 1962, over 6,000 nalorphine injections were being administered per month (*9*, *10*). The test will yield a negative result if it has been preceded by a drug-free period of 24 to 48 hours, or if a drug that produces a dilatation of the pupil has been administered prior to the test procedure. Also, the test is not as accurate or sensitive as chemical tests for narcotics in urine (*3*, *4*). Nevertheless, nalorphine testing was thought to be useful by the parole and probation officers (*9*, *10*). It was their impression that although the potential for addiction remains, the problem is contained. However, Terry and Teixeira (*10*) were not able to make a conclusive statement on this when they summarized their impressions in 1962 after having observed the use of the test in California for several years.

METHOD

Our own experience with the management of the narcotic addict began in 1960 with court-referred narcotic addicts who came to the hospital for diagnostic study and treatment. In an effort to determine the patient's receptivity toward treatment, we attempted to determine his freedom from narcotics on a daily basis. For this purpose nalorphine testing was not feasible, but a spot test for narcotics in urine was employed. This procedure, the Motley spot test (*8*), was accepted as being neither sensitive nor specifically reliable. However, the test was helpful in alerting the hospital staff to possible breaches of abstinence and emphasized the usefulness of this type of assessment. In January 1964, the Motley test was replaced by the much more sensitive and accurate procedure of thin-layer chromatography for detecting narcotics (*2*). This type of analysis will detect the administration of as little as 15 milligrams for a period up to 36 hours.

RESULTS

Court-referred narcotic addicts. A sequential presentation of the clinical impressions resulting from the daily analysis of urine begins with the court-referred narcotic addicts. These studies extend from 1960 to 1964, inclusive. During this period 46 male narcotic addicts were referred. Their periods of hospitalization ranged from a minimum of 1 month to over a year in some cases. Little could be provided in terms of treatment other than the routine care available in a state psychiatric hospital. Against this background an attempt was made to assess the deterrent effect of a daily urine analysis. The meager results are indicated in table 1. Inly 11 managed to remain sufficiently motivated and cooperative to reach a point in their hospitalization where they could be recommended for discharge and referral to an outpatient clinic. Only two of these 11 patients reported to an outpatient clinic for continuing treatment, although all had been referred. The remaining patients were either returned to the court because of their continued sociopathic acting out such as drug usage, disinterest, resistance to hospital routines, lack of motivation and attempts to elope from the hospital. During hospitalization, each patient at one time or another yielded a positive reaction for narcotics.

TABLE 1.—DISPOSITION OF COURT-REFERRED NARCOTIC PATIENTS

	Number	Percent
Referrals, 1960 to 1964 inclusive	46	100.0
Returned to court	22	47.8
Eloped from hospital	9	19.6
Discharged from hospital	11	23.9
In hospital	4	8.7

The presence of a positive reaction was not brought to the attention of the patient during the phase of study (1960–63) in which the Motley spot test had been utilized, since there was uncertainty concerning its reliability. Following the introduction of thin-layer chromatography, they were informed, but this did not appear to influence the occurrence of sporadic narcotic usage.

Voluntary narcotic admissions.—As attempts to treat the narcotic patient at the Spring Grove State Hospital became public knowledge in the metropolitan Baltimore area, more requests were made to enter the hospital on a voluntary basis. It was soon observed that the great majority of such patients stayed a relatively short period of time (see table 2), the hospital being utilized primarily for detoxifying purposes. Very few of these patients displayed withdrawal symptomatology which could be considered of moderate severity. The initiation of urinalysis for opiates by thin-layer chromatography of all admissions in 1964 revealed the rather puzzling observation that 24 percent of the patients were negative for opiates on admission (see table 2). A review of the case histories of the patients with multiple admissions seemed to indicate that their hospitalization had little effect on their subsequent usage of drugs.

TABLE 2.—CHARACTERISTICS OF VOLUNTARILY ADMITTED NARCOTIC PATIENTS

	Number	Percent
Admissions (Jan. 1, 1964 to Dec. 31, 1964)	54	100
Patients without symptoms of withdrawal	26	48.1
Patients with negative urine on admission	13	24.1
Patients with previous admissions	9	16.7
Patients remaining 1 week or less	26	48.1

The brief stay of the voluntary narcotic addict confronted the hospital administration with a question as to the significance of the therapeutic contact. This led to an attempt to obtain more control over these patients. It was anticipated that this would result in a longer stay and provide an opportunity for increased therapeutic effort. The hospital administration began to request the use of court orders and medical certificates on those patients with a history of multiple admissions seeking readmission. The wisdom of this was uncertain, since, as time went on, it became more apparent that the hospital did render assistance to these patients by allowing some degree of detoxification to occur, thus preventing a compounding of their difficulties and perhaps allaying the development of a state of panic with the resultant acting out of additional antisocial behaviour.

Parolees from correctional institutions (*the outpatient group*).—In order to investigate the deterrent effect of daily laboratory control in an outside environment, arrangements were made with the Department of Parole and Probation of the State of Maryland to select inmates with a history of narcotic usage or addiction whose homes were in Baltimore City and who would agree to accept the conditions of parole associated with this experimental program. The conditions were: Daily attendance at the clinic to provide a urine specimen, attendance at the weekly group psychotherapy meetings, maintenanace of a job and complianc with the other usual parole requirements.

On release, the patient reported to the clinic within a day or two. In the clinic he was seen initially in an individual interview by the psychiatrist and informed of the schedule he was to follow in providing his urine specimens. The importance of daily attendance at the clinic for the purpose of providing a urine specimen was also emphasized. In the event of illness or emergency, the patients were instructed to telephone and give the reason for their absence and these absences were reported to the probation officer on the following morning. The readiness with which these patients gave in to minor illnesses and the unending excuses presented concerning the difficulties they encountered in getting to the clinic made it necessary to take the position that an unauthorized absence would be considered as equivalent to a positive reaction.

This unit, which came to be known as the narcotic addiction clinic, began to function in June 1964. In its first 10 months of operation from June 1964 to April 1965, a total of 31 patients were referred to the clinic. Of these, two never reached the clinic. They apparently obtained narcotics immediately after release from the correctional institution and died from an overdose. The remaining 29 patients have attended the clinic for varying periods of time ranging from a few weeks to 9 months. Six of these 29 patients have had to be referred back to a correctional institution as control failures after varying periods of time in the clinic ranging from 3 weeks to 9 months, and two have absconded.

The overwhelming majority of these patients fell in the sociopathic diagnostic category. They presented histories of narcotics usage over varying periods of time and many had previous arrests for narcotic violations. Their response to the program was evaluated from several standpoints, namely: Laboratory control, the meaningfulness and course of the group therapy and the impact of this program on the probation officer.

Laboratory control.—Initially, the urine testing was on a daily basis. This frequency was decreased depending upon the level of abstinence achieved by the patient; there was usually a "night off" after several weeks in which his record had remained "clean." Specimens were collected under direct observation by a psychiatric aide and delivered to the laboratory for analysis the next day. A breach in the abstinence of a patient was promptly brought to the deviant's attention by the probation officer and in the weekly meeting with the psychiatrist.

The occurrence of these deviations raised many challenges in terms of the course to be taken with the patient. He was informed of the laboratory findings and asked for an explanation of his drug use. The decision as to the patient's subsequent course in the program rested on the degree of control he was manifesting over a 10-day period with day one beginning with a deviation. If over a 10-day period the breaches reached a level of 50 percent, the patient was taken into custody by the parole officer and returned to a correctional institution. Often a decision could not be made as to whether the patient should remain in the program or be returned to the correctional institution since the patient would again reestablish his control. In most cases he was allowed to remain in the program. Subsequently, some of these did well for a time while others decompensated again and had to be returned.

The problem of the failing patient raised many issues. One was whether the patient should be transferred to a hospital or retruned to a correctional institution. It was decided for the time being that all failures would be returned to a correctional institution. This decision was based to a large extent on the meager therapeutic achievements resulting in the court-referred narcotic addicts and the experiences with the voluntary admissions group. There was also the feeling that the correctional institution could provide greater work and rehabilitative opportunities than a State psychiatric hospital for this type of personality, since the great majority of these patients refused to see themselves as sick. Furthermore, for some of the patients, the hospital setting led to development of unrealistic therapeutic expectations. Their subsequent disappointment tended to reinforce their ever-present antogonisms while increasing their sense of the hopelessness relative to any attempt to treat their addiction.

Group therapy.—The group psychotherapy sessions turned out to be a helpful medium for the psychiatrist to obtain a better understanding of the patient. A group just getting underway was one in which there was a great deal of discussion about drugs, their urge for drugs, complaints, and many demands and expressions that the doctor do something for them rather than that they do something for themselves. Subsequently, as a group identification mechanism began to make itself apparent, discussions evolved which generated much feeling concerning their living and working conditions and their family problems. An increased sense of awareness developed, relative to the significance of the discussions of their problems, which frequently found expression in such remarks as, "After talking about this last week I wasn't angry anymore." Some of the members dropped out of the group, with a subsequent return to a correctional institution. The remaining members seemed to focus on the more complex aspects of their immaturity and impulsiveness. The therapist's attempts to point out some of their manipulative behavior and channel their thinking into approaches which might provide some insight seemed to become more meaningful.

The parole officer.—The parole officer made arrangements with the parolees to see them once weekly. However, the occurrence of a positive reaction or an unauthorized absence from the clinic led to an immediate confrontation as soon as an interview could be arranged. Continuing failure to comply with the program at a level which was considered satisfactory (and this varied somewhat from patient to patient) could lead to the patient's return to the correctional institution.

The most difficult issue confronting the parole officer was the return of the breadwinner of a family to a correctional facility. Quite often his release had resulted in his family being taken off the relief rolls. In addition, the patient might be doing quite well on the job and getting along with his family. It was especially difficult to make a decision in some of these cases, particularly when the decompensation had been gradual and occurred only over a rather long period of time. However, as the frequency of narcotic usage increased and the possibility of physical dependence became accentuated, a decision was made to return the indiviudal to a correctional institution.

DISCUSSION

The attempts to achieve maintenance of abstinence in the narcotic addict or user have in the great majority of such patients been so unrewarding that controversy still continues relative to the usefulness of this concept (*1, 11*). This is emphasized by the observations in the study; namely, that sporadic deviations occurred in practically all. However, the observation that laboratory control seemed to be of value in helping many of the parolees quickly regain their control and in extending their period of abstinence was repeatedly made. This program, which required an almost daily report on themselves, nevertheless allowed the patients on parole to carry out their daily lives in the context of their social setting, family and work relationships. It was found that such control could be carried out over a period of months, as indicated by the duration of this study to date.

Many of the patients, in their efforts to bypass this system of control, occasionally reverted to alcohol, amphetamines, and barbiturates. The degree to which these were utilized in dealing with their recurrent dysphoric states is as yet not known. As far as could be learned during the present period of study, even as the narcotic exit was being closed, there did not appear to be any increased antisocial behavior in terms of further arrests or infractions of the law. On the other hand, this does not mean that while these patients were restricting their usage of narcotic drugs they did not have disturbances in their social relationships, work activities, and within themselves.

The opportunities for studying nascent deviant behavior in drug users have not been as rewarding as anticipated. This may be due to the fact that the processes involved may be much more complex than is superficially indicated by the banality of the explanations offered and the difficulties in probing beyond these. While confrontation of the patient with a deviation from abstinence in most instances brought back a return to abstinence, there were patients who ultimately decompensated and in whom this repeated confrontation seemed to lose its impact. The factors responsible for this are as yet not clearly understood.

Although our experience is still limited, there is evidence that a deterrent effect is being exerted. This is indicated by the subjective expressions of the participants in the outpatient group. It was repeatedly pointed out by many of the participants that without this program they would be back on narcotics. It helped them by implementing their own control. The procedure also gave them security in protecting them from challenges by the police concerning their abstinence. Objectively, this deterrent effect could also be seen in the rapidity with which control was regained in many patients who sporadically deviated. Finally, there was the ever-present threat, which cannot be discounted, of being returned to a correctional institution.

CONCLUSION

The use of laboratory testing of urine obtained daily in an inpatient and outpatient setting indicated sporadic consumption of drugs in practically all patients. The outpatient group, despite their exposure to all the factors in an environment which might create pressure for drug usage, seemed to offer the most promising possibilities for management. The laboratory data also indicate varying and fluctuating degrees of control which offer a point of departure of new studies.

ACKNOWLEDGMENTS

Acknowledgments are made to the following for their assistance, cooperation, and services, without which this project could not have been carried out: Dr. Isadore Tuerk, commissioner, Department of Mental Hygiene, State of Maryland; Mr. Paul Wolman, director, Department of Parole and Probation; Mr. John V. Rohr, probation officer assigned to this project; and the facilities of the Crownsville Outpatient Clinic, under the supervision for Dr. Addison Pope.

REFERENCES

(*1*) Chein, I., Gerard, D. L., Lee, R. S., and Rosenfeld, E.: The Road to H: Narcotics, Delinquency and Social Policy. New York: Basic Books, 1964.
(*2*) Cochin, J., and Daly, J. W.: Rapid Identification of Analgesic Drugs in Urine with Thin-layer Chromatography, Experientia 18:29, 1962.
(*3*) Elliott, H. W., Nomof, N., Parker, K., Dewey, M., and Way, E. L.: Comparison of the Nalorphine Test and Urinary Analysis in the Detection of Narcotic Use, Clin. Pharmacol. Ther. 5:405–513, 1964.
(*4*) Elliott, H. W., and Way, E. L.: Effect of Narcotic Antagonists on the Pupil Diameter of Non-addicts, Clin. Pharmacol. Ther. 2:713, 1961.
(*5*) Foldes, F. F.: The Human Pharmacology and Clinical Use of Narcotic Antagonists, Med. Clin. N. Amer. 48:421–443, 1964.
(*6*) Fraser, H. F.: Human Pharmacology and Clinical Uses of Nalorphine (N-Allyinormorphine), Med. Clin. N. Amer. 41:383–403, 1957.
(*7*) Halbach, H., and Eddy, N. B.: Tests for Addiction (Chronic Intoxication) of Morphine Type, Bull. WHO 28:139–173, 1963.
(*8*) Kolmer, J. A., and Boerner, R.: Approved Laboratory Technique. New York: Appleton-Century-Crofts, 1945.
(*9*) Poze, S. R.: Opiate Addiction I. The Nalorphine Test II: Current Concepts of Treatment, Stanford Med. Bull. 20:1–23, 1962.
(*10*) Terry, J. G., and Teixeria, T. C.: Nalorphine Testing for Illegal Use in California: Methods and Limitations, J. New Drugs 2:206–210, 1962.
(*11*) Zusman, J.: A Brief History of the Narcotics Control Controversy, Ment. Hyg. 45:383–388, 1961.

Attachment No. 3

THE DAILY TESTING OF URINE FOR OPIATES AS A DETERRENT TO OPIATE USAGE: THE RESULTS OF A 5-YEAR STUDY (SUPPORTED BY PUBLIC HEALTH SERVICE GRANT NO. 07616, NATIONAL INSTITUTE OF MENTAL HEALTH, AND ALL PURPOSE GRANT NO. RR–05546, ADMINISTERED BY FRIENDS OF PSYCHIATRIC RESEARCH, INC.)

(By Albert A. Kurland, M.D. (Director of Research, Maryland Psychiatric Research Center, and Assistant Commissioner for Research, Maryland State

Department of Mental Hygiene), Robert Kokoski, Ph. D. (Chief, Drug Abuse Laboratory, Friends of Psychiatric Research, Inc.), Frances Kerman, R.N. (Research Nurse, Outpatient Narcotic Clinic, Friends of Psychiatric Research, Inc.), and Gene A. Bass, M.S. (Research Psychologist, Outpatient Narcotic Clinic, Friends of Psychiatric Research, Inc.), Maryland Psychiatric Research Center, Baltimore, Md.

(Presented at 32d annual meeting of the Committee on Problems of Drug Dependence, National Academy of Sciences-National Research Council, Washington, D.C., February 16–18, 1970)

INTRODUCTION

Narcotic abusers remain a formidable management and theraputic problem. Contributing to this difficulty in no small measure is their continuing to resort to manipulative and deceptive behavior in their efforts to conceal their deviant behavior (*1*). The development of techniques for detecting the deviant behavior relating to narcotic abuse through the testing of opiates in the body fluids has focused attention on the possibility of controlling such behavior through the use of daily monitoring. This study, initiated in June 1964, on a group of subjects with a history of narcotic abuse over whom mandatory supervision could be maintained, employed this approach. From time to time during the period from June 1, 1964, to May 31, 1969, progress reports have been submitted (*2–5*), with the present report summarizing the experiences with this system of management over this 5-year period.

METHODOLOGY

The subject participating in this study came from the correctional institutions of Maryland and were limited to those residing in Baltimore. They were referred to a special outpatient clinic operating only in the evening hours between 6 and 9 p.m., 7 days a week. The treatment program consisted of supervision by parole agents, the maintenance of abstinence, daily monitoring for opiate usage, with an incident of use resulting in a confrontation, and weekly sessions of open-ended group psychotherapy.

The parolees were from working class families primarily, and were composed of a mixture of approximately 40 percent whites and 60 percent blacks. Their ages ranged from 17 to 53, with most in the 20–30 age bracket. With few exceptions, the educational level was some degree of high school education or less. In a relatively small number of subjects there were episodes of alcoholism. Occasionally, a few resorted to the use of other drugs, such as the amphetamines or barbiturates.

Supported by Public Health Service Grant No. 07616, National Institute of Mental Health, and All Purpose Grant No. RR–05546, administered by Friends of Psychiatric Research, Inc.:

(1) Director of research, Maryland Psychiatric Research Center, and assistant commissioner for research, Maryland State Department of Mental Hygiene.
(2) Chief, Drug Abuse Laboratory, Friends of Psychiatric Research, Inc.
(3) Research nurse, Out-Patient Narcotic Clinic, Friends of Psychiatric Research, Inc.
(4) Research psychologist, Out-Patient Narcotic Clinic, Friends of Psychiatric Research, Inc.

The monitoring technique employed the collection of daily urine specimens obtained under direct observation by trusted attendants. These were analyzed, employing thin layer chromatography (6). A positive urine test led to the parolee being confronted by the parole officer, usually within 48 hours, and a brief interview with the clinic psychologist or one of the attending psychiatrists. If, despite these challenges, the individual persisted in the intermittent usage of opiates and this exceeded the clinical tolerance level of the program, the subject was returned to a correctional institution. This tolerance level had been established as the occurrence of five positive urine tests within any 10-day period. The parolees were never informed of this criterion, since this would have implied an allowance of a limited amount of opiate usage. They were aware, however, that the sporadic utilization of a narcotic did not result in their immediate return to a correctional institution.

DATA

An opportunity to determine on a daily basis the presence or absence of the use of narcotic drugs as the subject moved from a relatively drug-free environment into the free society, made it possible to construct a number of charts as to the course the subject pursued in the study. The following have been selected to provide a perspective on a number of issues that emerged from the data generated by the study:

Table 1—Course in program.
Table 2—Failure: trend.
Table 3—The occurrence of the first positive test for opiates.
Table 4—First positive test for opiate use and subsequent course.
Table 5—Subjects maintaining complete abstinence.
Table 6—Subjects achieving expiration of parole during first admission.
Table 7—Subjects remaining in program for 6 months or longer.
Table 8—Subjects achieving expiration of parole during second admission.
Table 9—A subject achieving expiration of parole on a third admission.
Table 10—Comparison of older and younger subjects as to their stay in program.

TABLE 1.—COURSE IN PROGRAM

Year	1st	2d	3d	4th	5th	Totals
First admissions	43	63	112	111	68	397
Readmissions	0	25	50	48	32	155
Total admissions	43	88	162	159	100	552
Total in program [1]	43	118	196	223	171	
Total days in program	4,764	11,315	21,857	25,565	28,064	
Average daily census	13.2	31.5	59.6	69.3	82	
Average participation, in days [2]	110	95	111	114	164	
Parole expired	0	6	9	10	16	41
As 1st admission, 29						
As 2d admission, 12						
As 3d admission, 0						
Returnees	6	49	66	62	30	213
As 1st admission, 148						
As 2d admission, 53						
As 3d admission, 12						
Absconders	5	17	49	46	30	147
As 1st admission, 97						
As 2d admission, 39						
As 3d admission, 8						
As 4th admission, 3						
New arrests	1	6	7	9	8	31
Deaths	0	0	0	2	1	3

[1] Subjects whose period of participation extended into a subsequent year utilizing the 1st of June as a dividing line were counted as a new subject for that year beginning with June 1, 1964, to May 31, 1965, as the 1st year.
[2] This figure was obtained by dividing the number of subjects for the year into the total number of days for the year.

TABLE 2.—FAILURE: TREND

Year	Subjects [1]	Failures [2]	Percentage
2d	118	66	55.8
3d	196	115	58.5
4th	223	108	48.4
5th	171	60	35.1

[1] The total number of subjects in the program and is obtained by totaling the new adminissions, readmissions, and the carryover from the previous year.
[2] Those returned to prison for failure to maintain abstinence or absconding.

TABLE 3.—COMPARISON OF THE 1ST POSITIVE TEST FOR OPIATES IN 300 1ST ADMISSIONS

	1st 100	2d 100	3d 100
Positive reaction within day:			
1st 4 weeks:			
1 to 7	44	46	33
8 to 14	11	22	13
15 to 21	4	6	8
22 to 28	7	3	5
2d 4 weeks:			
29 to 35	4	4	3
36 to 42	5	2	10
43 to 49	4	1	4
50 to 56	0	2	1
3d 4 weeks:			
57 to 63	1	1	2
64 to 70	1	1	3
71 to 77	4	2	1
78 to 84	0	4	1
Total	85	94	84

TABLE 4.—RELATIONSHIP BETWEEN 1ST POSITIVE TEST FOR OPIATES AND SUBSEQUENT COURSE

1st positive test for opiate usage (1st 300 administered)			Discharges from program—1st admissions (397)				
Days	Number	Percent	Returned to prison for narcotic use	Absconders	Others[1]	Total	Percent
0 to 28	202	67.3	17	22	2	41	10.3
29 to 56	40	13.3	17	20	5	42	10.5
57 to 84	21	7.0	18	13	6	37	9.3
Total 12 weeks	263	87.7	52	55	13	120	30.1

[1] Removed because of violation of parole or new arrest.

TABLE 5.—PAROLEES MAINTAINING COMPLETE ABSTINENCE UNTIL EXPIRATION OF PAROLE

Parolee	Age	Days[1]	Positives	Absences	Followup
142	24	883	0	0	On methadone.
128	27	866	0	5	Doing well.
308	29	651	0	0	Do.
274	38	594	0	6	
160	27	571	0	0	Using drugs.
158	44	544	0	1	
190	22	522	0	9	
361	26	414	0	1	
2	24	393	0	0	Doing well.
413	22	359	0	0	Using drugs.
264	29	257	0	1	Doing well.
200	40	220	0	3	

[1] Table is arranged from the longest to the least period of abstinence in days.

TABLE 6.—IN PROGRAM 6 MONTHS OR LONGER

As 1st admission	135
As 2d admission	20
As 3d admission	3

TABLE 7.—EXPIRATION OF PAROLE ON 1ST ADMISSION

Parolee	Age	Days	Positives	Absences	Followup
142	24	883	0	5	
113	30	869	17	36	Doing well; drug free.
128	27	866	0	5	
29	23	764	2	12	
22	27	762	39	18	Doing well; drug free.
105	23	677	27	7	On a methadone program.
308	29	651	0	0	
274	38	594	0	6	
160	27	571	0	0	
298	25	556	3	0	Returned to drug use.
247	21	554	30	13	
158	44	544	0	1	
190	22	522	0	9	
77	33	520	6	5	In correctional institution.
34	30	493	22	37	
185	21	741	48	3	Doing well.
144	42	467	7	0	
361	26	414	0	1	
2	24	393	0	0	
413	22	359	0	0	
278	39	355	4	22	Doing well.
337	25	347	4	5	
4	35	328	32	42	Readmitted to program.
429	21	295	2	1	
264	29	257	0	1	
55	24	246	28	3	
200	40	220	0	3	
82	38	183	13	2	
229	22	126	31	5	

TABLE 8.—EXPIRATION OF PAROLE—ON 2D ADMISSION

		Course, 1st admission			Course, 2d admission			
Parolee	Age	Days	Positives	Absences	Days	Positives	Absences	Followup
(74) 126B	37	119	4	5	1,015	2	5	Returned to drugs.
(11) 44B	27	159	25	31	243	8	33	On methadone.
(348) 477B	29	16	8	0	238	2	2	Doing well.
(354) 504B	25	323	22	9	132	3	1	
(109) 352B	29	456	40	20	119	19	4	
(373) 519B	20	185	1	2	107	4	0	
(103) 293B	28	415	42	7	104	12	2	
(123) 205B	24	134	25	3	91	7	0	
(6) 68B	23	399	31	36	79	3	0	
(26) 89B	22	136	18	13	52	6	6	
(147) 259B	32	157	10	3	42	15	0	
(24) 130B	32	445	26	27	38	5	2	

Note: Number in parenthesis refers to 1st admission.

TABLE 9.—EXPIRATION OF PAROLE—ON 3D ADMISSION

Parolee 463C	Age	Days	Positives	Absences
Course on 1st admission	27	184	11	11
Course on 2d admission	28	11	5	2
Course on 3d admission	28	36	10	1

TABLE 10.—RELATIONSHIP OF AGE TO DAYS IN PROGRAM (AS 1ST ADMISSION)

Parolee	Age	Days	Pos.	Abs.	Average.[1]
17 to 23 year age group (N=45):					
385	17	18	0	4	N=3. Average=187.67.
135	17	420	30	10	
368	17	125	9	4	
48	18	169	29	6	N=4. Average=127.25.
492	18	226	10	3	
230	18	58	8	1	
440	18	56	2	4	

See footnote at end of table.

TABLE 10.—RELATIONSHIP OF AGE TO DAYS IN PROGRAM (AS 1ST ADMISSION)—Continued

Parolee	Age	Days	Pos.	Abs.	Average [1]
17 to 23 year age group (N=45)—Continued					
84	19	49	6	4	N=12. Average=129.67.
502	19	121	6	4	
390	19	74	11	0	
256	19	58	8	7	
240	19	32	15	6	
373	19	185	1	2	
411	19	19	10	0	
28	19	86	9	11	
289	19	552	1	2	
481	19	278	0	0	
251	19	66	14	1	
335	19	36	20	4	
184	20	21	0	8	N=17. Average=152.41.
327	20	10	0	4	
333	20	641	28	3	
193	20	469	7	3	
288	20	73	18	8	
154	20	21	2	7	
295	20	92	20	8	
529	20	89	0	0	
38	20	86	18	9	
479	20	17	3	6	
371	20	548	0	4	
392	20	95	1	4	
296	20	140	19	15	
320	20	98	8	8	
56	20	42	16	3	
30	20	139	21	8	
431	20	10	4	0	
406	21	39	13	0	N=9. Average=255.55.
324	21	142	3	3	
247	21	554	30	13	
26	21	136	18	13	
31	21	149	8	17	
329	21	649	0	6	
185	21	471	48	3	
272	21	81	9	6	
299	21	79	5	5	
35- to 53-year age group (N=44):					
366	53	108	1	0	N=2. Average=187.50.
312	47	267	10	0	
168	46	22	11	1	N=4. Average=405.25.
546	44	25	0	0	
151	44	1,030	----------	----------	
158	44	544	0	1	
319	43	98	0	11	N=12. Average=239.42.
116	43	71	13	4	
144	42	467	7	0	
302	42	524	11	14	
283	42	448	4	2	
153	42	20	11	3	
208	41	33	0	2	
360	41	86	10	1	
397	41	284	11	4	
200	40	220	0	3	
233	40	578	28	8	
459	40	39	8	8	
454	39	9	6	2	N=17. Average=220.41.
278	39	355	4	22	
281	39	39	14	1	
486	39	150	0	5	
274	38	594	0	6	
82	38	183	13	2	
221	38	365	32	16	
245	38	16	12	0	
248	38	170	0	6	
531	38	72	1	0	
74	37	119	4	5	
136	37	10	1	8	
137	37	1,062	0	6	
176	37	127	5	6	
422	37	437	1	0	
547	37	19	0	0	
380	37	20	13	2	
59	37	259	31	12	N=9. Average=152.44.
23	36	113	26	10	
81	36	29	5	9	
131	36	51	8	3	
156	36	252	15	15	
534	36	8	0	5	
231	36	32	13	4	
469	36	321	0	1	
472	36	307	0	1	

---

[1] In days.

DISCUSSION

Although the approach was originally delineated as a study in deterrence, it became apparent as the study progressed that other elements were playing a role, the impact of which would be difficult to define without a control group of nonmonitored subjects. Although this was considered, it was not attempted because the scope of the problems were beyond our capability. Nevertheless, from the data elicited it was possible to obtain an overall view as to the courses the subjects followed. From this information, year by year comparisons were made, as shown in table 1. These comparisons displayed changes indicating that the program was becoming progressively effective in retaining the subjects for increasing periods of time. This was manifested in several ways, namely, that despite a growing average daily census, there were decreasing numbers of subjects returned to a correctional institution because of additional narcotic abuse or absconding from the program. There was also the fact that the number of new arrests remained relatively low and were nondrug related. Considering the highly recidivistic nature of the group, this appeared to be an encouraging development. In the three deaths reported, all were accidental and not associated with the use of narcotic drugs.

The comparative data of table 1 were analyzed in table 2 from the standpoint of comparing the total number of admissions to the program with the failures. The total number of admissions included new admissions, readmissions and the number carried over in the program from the preceding year. The failures were composed of returnees to the correctional institutions because of increasing drug usage, and the absconders who were disqualified for any further acceptance. In calculating the percentage of the failures in relation to the total number of admissions, the percentage gradually decreased over the fourth and fifth years. This would seem to suggest that the program was becoming much more effective in retaining subjects, since no changes had been made from the original experimental design.

With the opportunity to determine on a daily basis the use of narcotic drugs, a question arose as to the relationship between the occurrence of the first positive test and subsequent course. Table 3 compares the occurrence of the first positive test for opiates in 300 first admissions. The interesting observation was made that this occurs in a very high percentage of the subjects within the first 12 weeks following their release. No definite explanation for this behavior has been delineated, although the phenomenon has been attributed to a variety of factors, such as a need to celebrate release from custody; reassurance that response to the drug effect has not changed; and to reinstate their social relationships. Surprisingly, there is little overt expression of any initial anxiety over the problems they faced in reintegrating themselves into the community.

With the high incidence of an early initial exposure, it became of interest to compare this event with the incidence of failure in the program over the first 3 months. Evaluation of the data from this aspect revealed a failure rate for the first 3 months averaging approximately 10 percent per month. This would appear to indicate that most of the subjects were making some effort to control their desire for the drug experience. The 10 percent that immediately relapsed, of course, raises questions as to their motivation or the presence of other factors. These experiences emphasized the critical significance of the first few months in the program and the necessity of intensive scrutiny and study for a more detailed clarification of those factors bringing this about and their resolution.

The number of parolees who managed to maintain complete abstinence during the period of participation in the program was very small. Table 5 tabulates the course of the 12 subjects out of the 397 first admissions who managed to achieve this. There was little in this initial approach to suggest any special factors as contributing to their course. The issue, however, is complicated in that a number of subjects regressed once they left the program, and the length of participation in the program seemed to have no significant relationship to this occurrence.

Since a major goal of the program had been the endeavor to maintain the subjects in the program for as long as possible, the data were reviewed to determine the number of subjects who had been able to remain in the program for a period of 6 months or longer. The 6-month period had been somewhat arbitrarily determined as "the break-even point" in that the subject who was able to maintain himself for this period of time or longer made the justification of the resources invested in this approach in bringing about his release from a correctional institution and his involvement in the program meaningful. The subjects accomplishing this are tabulated in table 6. Among the first admissions, 135 managed to achieve this period of participation, or longer. However, only a relatively small number of the second admissions were able to achieve this—20 out of 155. This would seem to suggest that the subject's best opportunity for making out well in the program occurs during the first admission, and this failure may be associated with an attenuation of their motivation on subsequent admissions. The exception to this is those patients who on their first admission, because of insufficient motivation, very quickly relapse into narcotic abuse. When these patients are given an opportunity to return to the program at a later date, they do better in terms of length of participation, since their first admission apparently presented them insufficient challenge.

There was a continuing interest in the subsequent course of those individuals who had left the program. Although the research design had no provision for a systematic followup, information did reach the clinic via the "grapevine", contacts and chance meetings, information originating in other programs, and from former subjects visiting the clinic or reappearing in institutions. This information was recorded and noted as followup in tables 5, 7, and 8. Where there was no information available, the space was left blank. Table 7, that tabulates the expiration of parole on the first admission, indicates that in the small sample of information reported, the number remaining abstinent and the number returning to drug use was about equally divided.

The information tabulated in table 8 provided an opportunity to compare a second admission who had achieved expiration of parole during this admission with his course on the first admission. Inspection of this table reveals the variability and the difficulties in attempting to come to a conclusion as to the factors responsible.

The course of a third admission is presented in table 9. The subject who achieved the expiration of parole on his third admission again reflects the variability which may occur and for which there are no specific explanations. It also emphasizes the problem that emerges when an individual is admitted to the program with only a brief period of time remaining in his parole status.

Of considerable interest was the relationship of age to the length of time spent in the program. The literature gives the impression that the youthful narcotic user has a more difficult time in participating in the program. To some extent this would seem to be true as indicated in table 10. However, there is a great deal of variability for which there are no apparent explanations.

CONCLUSION

It would appear that a program of this nature is feasible and meaningful and may well be a preamble to other forms of treatment concerned with the management of the narcotic abuser. This impression arose from repeated observations despite the polarity of the program; that is, its punitive and therapeutic aspects with the overwhelming majority of the participants tending to view the program as being supportive. Furthermore, the relative lack of complaints from his family appeared to be significant.

Aspects of the program which were difficult to assess, but nevertheless related to the support it provided, touch upon such issues as the reassurance it provides first for an employer knowing that his employee is participating in such a program; second, the relief it provides the parolee's family from a chronic preoccupation with the exercising of policing the subject; and third, the invaluable service it provides the parole agent by allowing him to function with an increased sense of effectiveness by his knowledge of the daily status of his charges. The approach provides a mechanism by which a productive relationship is established between the parolee, his parole supervisors, and the clinic staff. It also provides opportunities for detecting periods of stress leading to narcotic abuse. The prompt confrontation and the assistance provided, prevents an accelerated regression into another cycle of narcotic dependency in many of the subjects. The fact that no patient became addicted while participating in the program, and that the number of arrests were relatively small for a group as highly recidivistic in nature as this one, was a most encouraging finding.

REFERENCES

(1) Kurland, A. A. The deceptive communication and the narcotic abuser. *Rutgers Symposium on Communication and Drug Abuse,* Rutgers University, The State University of New Jersey, New Brunswick, N.J. (1969), Sept. 3–5.

(2) Kurland, A. A., Wurmser, L. & Kerman, F. Urine detection tests in the management of the narcotic addict. Am. J. Psychiat. (1966), *122*:737–742.

(3) Kurland, A. A., Kerman, F., Wurmser, L. & Kokoski, R. Intermittent patterns of narcotic usage. In, *Drug Abuse, Social and Psychopharmacological Aspects,* J. O. Colt and J. R. Wittenborn, Eds. C. C. Thomas: Springfield (1969), pp. 129–145.

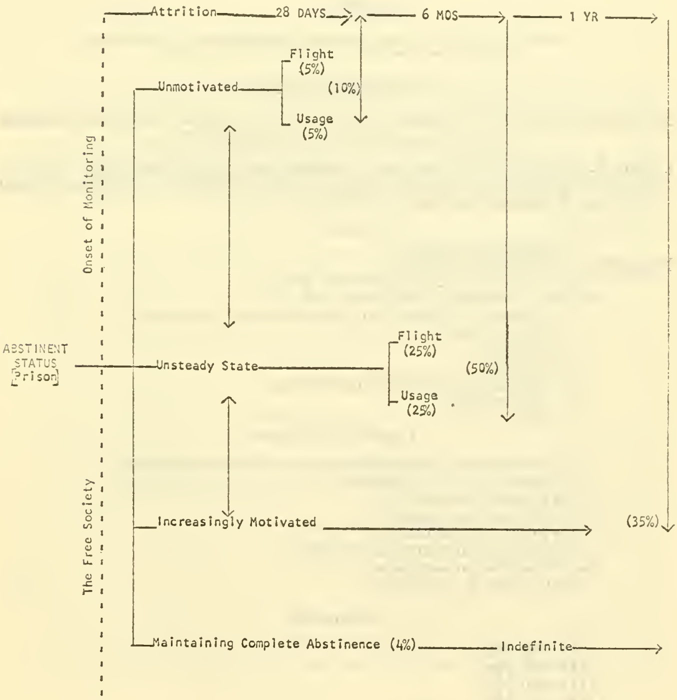
(4) Kurland, A. A., Kerman, F. and Bass, G. A. Laboratory control as a deterrent to narcotic usage—a case study. In, *Drugs and Youth—Proceedings of the Rutgers Symposium on Drug Abuse,* J. R. Wittenborn, H. Bill, G. P. Smith and S. A. Wittenborn, Eds. C. C. Thomas: Springfield (1969), pp. 372–384.

(5) Kurland, A. A. Outpatient management of the narcotic addict. In, *Drugs and the Brain,* P. Black, Ed. Johns Hopkins Press: Baltimore, Md. (1969), pp. 363–370.

(6) Kokoski, R. A practical application of thin-layer chromatography in the detection of narcotic drugs in the urine. Psychopharmacol. Bull. (1966), *3*:34–36.

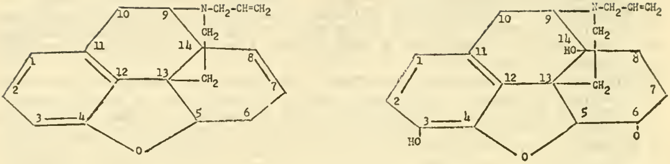
Attachment No. 4

PERIOD OF RETENTION OF PAROLEES IN AN ABSTINENCE PROGRAM



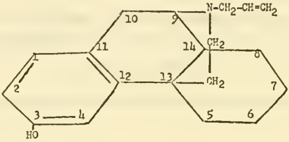
Attrition
28 DAYS
6 MOS
1 YR
Flight (5%)
Unmotivated
(10%)
Usage (5%)
Onset of Monitoring
ABSTINENT STATUS [Prison]
Unsteady State
Flight (25%)
(50%)
Usage (25%)
The Free Society
Increasingly Motivated
(35%)
Maintaining Complete Abstinence (4%)
Indefinite

Attachment No. 5



A. NALORPHINE

B. NALOXONE



C. LEVALLORPHAN

Figure 1. The structural formulas of nalorphine (N-allylnormorphine), levallorphan (N-allylnorlevorphan) and naloxone (N-allylnoroxymorphone).

Attachment No. 6

NALOXONE IN THE MANAGEMENT OF THE NARCOTIC ABUSER EMPLOYING A SYSTEM OF PARTIAL BLOCKAGE—A PILOT STUDY

(Albert A. Kurland, M.D., Assistant Commissioner, State Department of Mental Hygiene, Superintendent, Maryland Psychiatric Research Center, Medical Director, Friends of Psychiatric Research, Inc.)

CODE

O=Specimen negative.
Blank Space=Authorized absence.
X=Unauthorized absence from clinic.
N/S=No specimen—could not void.
-=Specimen combined with previous day's specimen.
/=Clinic closed.
D=Deceased.
H=Hospital.
?=Incomplete data from laboratory.
F=Absconding.
J=Jail.

ILLICIT DRUG USAGE

A=Positive for amphetamines and methamphetamines.
B=Positive for barbiturates.
C=Positive for codeine.
CC=Positive for cocaine.
Di=Positive for dilaudid.
M=Positive for heroin or morphine.
Me=Positive for methadone.
Q=Quinine in specimen.

NALOXONE

1=200 Mg.
11=400 Mg.
111=600 Mg.
1111=800 Mg.
.=Naloxone rejected.
:=Naloxone discontinued.
†=Placebo.
*=Off all medication.

TRANSFERS

(These were parolees who, on the abstinence program, were beginning to decompensate into increasing opiate usage and under ordinary circumstances would have begun to become considered as possible returnees to the correctional institution for violation of their parole, were transferred to the Naloxone program.)

Chart No 11 (*case No. 546*)

Displays the course of a parolee who had two admissions to the abstinence program. On his first admission in May 1969, within a few months he decompensated into increasing drug usage of a frequency that led first to his hospitalization in a desperate effort to interrupt it. Within a few days after he was released from the hospital, he was once more using drugs and was returned to a correctional institution.

On a second admission (case No. 607B) he did quite well for a period of several months and then began to show evidence of drug use, bringing about his transfer to the naloxone program. Very promptly he reverted back to his abstinent status and during this course he was changed from the naloxone medication to a placebo and continued to do well. The placebo medication was discontinued after several weeks and he has received no medication at all and has continued to do well.

TRANSFER CHART NO. 11

Name: McC.W. 1st Adm. Case No. 546 Adm. 5-6-69 Dis. 9-30-69

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
'69 May						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0		0		0	0	0	0		
July	0		0	0	0	0		0		Q		M Q	-		Q	0	0	Q	Q	-	/	X	Q	Q	M Q	M Q	X	0	M Q	Q	M Q
Aug.	M Q	N S	X	M Q	M Q	H	H	H	H	H	H	H	H	H	H	H	H	0	0	0	Q	X	Q	-	Q	X	M Q	0	0	0	0
Sept.	0	0	0	0	0	0	0	X	M Q	Q	Q	Q	X	Q	0	Q	Q	M	M Q	M Q	-	M Q	M Q	ME Q	M Q	M Q	M Q	N S	X	J	

2nd Adm. Case No. 607B Adm. 11-4-69 Naloxone 5-7-70

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
'69 Nov.				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	/	0	0	0	
Dec.	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0		0		0	0	0	0		0	0
'70 Jan.	0	0	0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0
Feb.	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0			
Mar.	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0		0	0
Apr.		0		0	0		0		0		0	0		0		0		M Q	N/S		Q	Q	0	0	M Q	-	0	0	0	0	
May	M	Q	-	M Q	M Q	M Q	N Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0:	†0	0	0	0	0	0	0	0
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct.	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0		0		0	0	0	0		0		0		0
Nov.	0		0		0		0	0		0		0		0	0		0		0		0	0		0		/		0	0		
Dec.	0		0		0	0		0		0		0	0		0		0		0			0		/	/	0	0		0		/
'71 Jan.	/	0	0		0		0		0	0		0		0		0	0		0		0		0			0		0		0	0
Feb.		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0			
Mar.		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0	
Apr.	0		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		

Chart No. 14 (case No. 672)

Displays the course of the patient who, shortly following his admission to the abstinence program, began to use drugs, was admitted to a hospital where he remained for almost a month, and following his release did well for several months. As evidence began to appear of intermittent opiate usage, he was placed on the Naloxone program with some indication that his course was beginning to once more stabilize toward the maintenance of abstinence.

TRANSFER

Chart No. 14

Name: K.R.

Case No. 672

Adm. 5-19-70
Naloxone: 7-23-70

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1970 May																			0	0	0	0	0	0	M	0	0	0	0	0	0
June	0	0	0	0	$\overset{M}{Q}$	0	0	0	0	0	0	Q	X	$\overset{M}{Q}$	$\overset{M}{Q}$	$\overset{Me}{Q}$	X	X	X	Q	0	0	0	0	H	H	H	H	H	H	
July	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	0	0	0	0	0	0	0	0	0
Aug.	0	X	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oct.	0	0	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	/	0	0	-	-	
Dec.	Q	0	0	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	A	0	/	/	0	0	0	0	0	/
'71 Jan.	/	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0	0	0	0	X	$\overset{M}{Q}$	0	X	0	Di	0	0	0	0	0
Feb.	0	0	0	0	0	$\overset{N/}{S}$	Me	Me	0	0	0	0	0	0	0	0	X	0	0	0	0	0	0	0	0	X	0	0			
March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0	X	X	0	0	0	0	0	0	0	0	0	0	0
Apr.	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	X	0	0	0	0	0	

DIRECT ADMISSIONS (SELECTED PRIMARILY ON THE BASIS OF YOUTHFULNESS)

Chart No. 2 (case No. 592)

Illustrates the course of an individual, who despite the partial blockade system, could not maintain his abstinence and was eventually discharged from the program, since his parole expired, with the recommendation that he pursue his treatment in a methadone program.

DIRECT ADMISSION CHART NO. 2

Name: D.D. Case No. 592 Adm. 9/23/69

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		20	21	22	23	24	25	26	27	28	29	30	31
1969 Sept.																							0	0	M Q	M Q	0	M Q	Q	0	
Oct.	0	0	M A	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	B	B	0	0	0	0	M Q	M	0	X
Nov.	0	0	0	0	0	0	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M	*													

Case No. 628B

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1970 Jan.						M	0	0	0	0	0	0	0	0	Q	0	0	0	0	0	0	0	0	M	0	0	0	0	0	0	0
Feb.	0	0	0	0	Q	Q+	0	0	0.	0	0	0	0	M 0	M Q	0	0	0	0	0	0	0	0	0	0	0	0	0			
Mar.	0	0	0	0	X	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	Q	0	0	0	0
April	0	0	0	0	C	X	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M Q	C M	
May	0	0	0	0	0	0	0	0	X	Q M	0	0	0	X	Q M	M	0	M Q	0	0	0	0	0	0	0	0	0	0	0	0	M Q
June	M Q	0	0	0	0	0	0	0	0	0	X	0	M Q	Q	Q	0	0	0	0	X	0	M Q	Q	Q	Q	0	0	0	0	0	
July	0	0	M Q	Q	0	0	0	0	0	0	X	M Q	Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0
Aug.	0	0	0	0	0	X	0	0	0	0	0	0	0	0	0	0	A	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	M Q	0		0	0	X	0	M	0	M	
Oct.	Di	[illegible]	0	0	Di	Di	0	0	0	0	0	0	0	0	0	0	Di	Di	MQ Di	Di Q	0	0	Di	Di	Di	Q	0	Q	0	Di	0
Nov.	0	Di	0	0	0	0	Di	0	Di	0	Di	Di	Di	Di	Di	Di	Di	Di	Di	X	0	0	Di	Di	Di	/	Di	0	0	0	
Dec.	Di	0	Di	Di	Di	Di	Di	Di	X	M Q	M Q	M 0	0	Di	0	Di	0	DI	0	0	X	0	QM Di	/	/	Q	X	M Q	Q	0	/
'71 Jan.	/	X	0	X	0:	X	0	0	0	0	0	PE																			

Chart No. 4 (case No. 594)

Illustrates the course of an individual who has continued to remain abstinent from opiate drugs although there have been episodes of unauthorized absences.

Direct Admission
Chart No. 4
Adm. 9/23/69

Name: B.J.
Case No. 594

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1969 Sept.																							0	0	0	0	0	0	0	0	
Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1970 Jan.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	†0	0	0	0
Feb.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0			
Mar.	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0		0
Apr.		0	0	0	0		0		0	0	0	0		0		0		0	0		0		0		0	0		0		0	
May		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0
June		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0	
July		0		0		0	0		0		0		0	0		0		0	0		0		0		0	0		0		0	
Aug.	0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0	
Sept.	0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		
Oct.	0		0	0		0		*0		0	0		0		0		0	0		0		0		0	0		0		0		0
Nov.	0		0		0		0	0		0		0		0	0		N/S		0	0	0	0	0	0	0	/	0	0	0	0	
Dec.	0		0		0					0		0	0		0		0		X	X				/	/						/
'71 Jan.	/	0	0	0	0	0	X	0	0	0	0	0	0	0	0	0	X	0	0	0	X	0	0	X	0	0	0	0	0	0	0
Feb.	0	0	0	0	X	0	0	X	0	0	0	0	0	0	X	X	0	0	0	0	0	0	0	0	0	0	0	0			
March	0	0	0	0	0	0	0	0	0	0	0	0	0	*0	0	0	0*	0	0	0	0	0	0		0	0	0	0	0	0	
Apr.	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Charts No. 8, 9, and 10

Illustrate the course of subjects who were apparently poorly motivated since they absconded from the program without any evidence of any extensive use of drugs.

DIRECT ADMISSION Chart No. 8

Name: C.G. Case No. 617

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1969 Dec.		Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X
1970 Jan.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0	0	0	0
Feb.	0	0	0	0	0	0	0	0	0	0	0	M	0	Q	M Q	0	0	0	0	X	0	0	0	0	0	0	0	X			
Mar.	M	M	M	0	N/S	M Q	M Q	X	Q	X	X	Q	Q	X	X		M Q	X	F												

DIRECT ADMISSION Chart No. 9

Name: S.F. Case No. 622

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1969 Dec.															Me Q	Q	X	0	0	0	0	0	0	0	0	X	0	0	0	0	0
1970 Jan.	0	0	0	0	0	0	Q	0	X	0	?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X
Feb.	0	0	0	0	0	0	X	0	0	0	X	0	0	0	0	0	0	0	0	0	X	X	X	X	X	F					

DIRECT ADMISSION Chart No. 10

Name: E.L. Case No. 616

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1969 Nov.																									X	M Q	Q	M Q	N/S	0	
Dec.	Q	0	0	0	X	0	0	0	0	0	0	M Q	Q	Q	0	0	X	0	X	Q	0	N/S	M Q	0	M	X	X	0	X	X	X
1970 Jan.	X	X	X	X	X	F																									

Chart No. 29 (case No. 682)

Illustrates the course of a subject who has pursued a stable course on the naloxone program.

DIRECT ADMISSION Chart No. 29

Name: S. R. Case No. 682
Adm. 6/9/70

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1970 June									0	N/S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
July	0	0	0	0	0	0	0	0	0	0	0	0	0	0	N/S	0	0	0	0	0	0	0	0	0	0	0	N/S	0	0	0	0
Aug.	0	0	0	0	0	0	0	0	0	0	0	0	N/S	0	0	0	0	0	0	/	0	0	0	0	0	0	0	0	0	0	0
Sept.	N/S	0	0	0	0	N/S	0	0	0	0	0	0	0	0	Q	N/S	0	0	0	0	0	0	0	0	0	N/S	N/S	0	0	0	
Oct.	0	0	N/S	0	0	N/S	0	N/S	0	0	0	0	0	0	0	0	N/S	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nov.	0	0	N/S	0	0	0	0	0	0	0	0	0	0	N/S	0	0	0	0	Q	0	0	0	0	0	0		0	0	0	0	
Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	Q	0	0	0	0	0	0	0	0	0	/	/	0	0	0	0	0	/
'71 Jan.	/	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		0		0	0	0
Feb.	0		0		0	0	0	0		0		0	0		0		0		0	0		0		0		0	0				
March	0		0		0	0		0		0		0	0		0		0	†	0	0		0		0		0	0		0		*Q
Apr.		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	

Chart No. 35 (case No. 697)

Except for one morphine positive, the record of this subject has been abstinent.

Direct Admission — Chart No. 35

Name: T. R. — Case No. 697 — Adm. 7/14/70

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1970	July														0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	X	0	0	0	0	0	0	0	0	0	0	0
	Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Oct.	0	0	0	0	0	0	0	0	0	0	0	0	Q	Q	0	M Q	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Nov.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	/	0	0	0	0	
	Dec.	0	0		0		0	0	0	0		0		0	0	0	0		0		0	0	0	0	/	/		0		0	0	/
'71	Jan.	/		0	0		0	0	0		0	0		0		0		0	0		0		0		0	0		0		0		0
	Feb.	0		0		0		0	0		0		0		0	0		0		0	0		0		0		0	0				
	Mar.	0		0		0	0		0		0		0	0		0		0	:†	0	0		0		0		0	0		0		* 0
	Apr.		0	0		0		0		0	0		0		0		0	0		0		0		0	0		0		0		0	

Chart No. 38 (case No. 709)

Reflects the course of a subject who initially did well then decompensated into an episode of increasing opiate usage which was interrupted by hospitalization. On return to the program, he was again placed on naloxone and despite this he again decompensated into a episode of opiate usage, extending over a period of approximately 2 weeks and was then able to recover and has maintained an abstinent course, as indicated on the chart.

DIRECT ADMISSION — Chart No. 38

Name: F. J. — Case No. 709 — Adm. 7/29/70

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1970	July																													0	0	0
	Aug.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sept.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Oct.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Nov.	0	0	0	0	0	0	X	C M	0	0	0	0	C	M C	0	0	0	0		0	0	0	0	0	0		0	0	0	0	
	Dec.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	/	/	0	M Q	M Q	M Q	M Q	/
'71	Jan.	/	Q	Q	M Q		M Q	Q	M Q	N S	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M .Q.	N S	.0	H	H	H	H	H	0	0	0	0	M Q	X
	Feb.	X	X	X	X	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	M Q	Q	0	0	0	0	0	0	0	0	0	0			
	March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Apr.		0	0	0	0	0	0		0	0	0	0	.0	0		0	0	0	0		0		0	0	0	0		0	:†	0	

From January 18, 1971, to January 20, 1971, inclusive, the patient was excused by a parole agent from taking his naloxone, since it was making him sick and he was planning to enter the hospital for the interruption of his use of opiate drugs.

Chairman Pepper. Our last witness today is Dr. Richard B. Resnick of New York. Dr. Resnick is head of the addiction services unit of Metropolitan Hospital Medical Center, where he also serves as assistant attending psychiatrist.

Dr. Resnick received his medical degree in 1958 from New York Medical College and was formerly chief resident in psychiatry at Montefiore Hospital in New York.

He is the author of numerous articles on the treatment of heroin addiction using narcotic antagonists.

Dr. Resnick is a colleague of Drs. Max Fink and Alfred Freedman of New York Medical College, and has worked with them on significant research on the narcotic antagonists cyclazocine and naloxone. While these drugs have not yet been perfected for use in treating addiction, they offer real promise and the committee looks forward to your testimony Dr. Resnick.

Mr. Perito, you may proceed.

Mr. Perito. Thank you, Mr. Chairman.

Dr. Resnick, you have a prepared statement; is that correct?

STATEMENT OF DR. RICHARD B. RESNICK, ASSOCIATE PROFESSOR, DEPARTMENT OF PSYCHIATRY, NEW YORK MEDICAL COLLEGE

Dr. Resnick. Yes, sir.

Mr. Perito. Would you care to read it or summarize it as you wish?

Dr. Resnick. Well, I would like to read it with some amendments from the original statement.

Mr. Perito. Fine, Doctor. With the chairman's permission, please proceed.

Chairman Pepper. You go right ahead.

Dr. Resnick. Mr. Chairman and members of the committee, I am going to discuss with you my experiences in the use of narcotic antagonists in the treatment and also in the eventual potential use of these substances in prevention of opiate dependence.

I believe that we are now on the threshold of a very important medical breakthrough in both the treatment and the prevention of narcotic addiction. As you are aware, until now the prevailing treatments of addiction have been either rehabilitative techniques alone or together with the use of opiate substitutes such as methadone and that the development of the orally effective narcotic antagonists now provides a basis for a new and a different model of treatment.

During the past 5 years at the New York Medical College we have used and investigated these antagonists, substances such as cyclazocine and naloxone, for the treatment of opiate dependent individuals.

Our treatment has focused mainly on cyclazocine because of its relatively longer duration of action and its more ready availability.

Cyclazocine is an effective nonaddicting narcotic antagonist which, when taken daily in does of 4 to 5 milligrams a day, will block all the physiological and subjective effects of about 20 or 25 milligrams of intravenous heroin and this action persists over a 20–26-hour period.

This amount of heroin is roughly equivalent to about $20 or $30 worth of heroin as available in the streets.

In our studies we have treated addicts who have volunteered for admission in the inpatient treatment center of a municipal hospital in the East Harlem section of New York City. This population is predominantly low income, predominantly Negro and Puerto Rican, with low educational levels, and many are receiving extensive welfare assistance.

Our patients range in age from 17 to 54 years and the duration of their addiction has been from 2 to 30 years.

After these individuals are admitted to the hospital, they are withdrawn from heroin over a period of about a week. They are then kept in the hospital in a drug-free state for about another week and they are then inducted on cyclazocine to the maintenance dose of generally 4 milligrams a day.

Now, you have heard about side effects of cyclazocine and it is true that during this induction period, during the buildup, patients do experience side effects. However, these side effects do gradually subside and completely disappear after the maintenance doses are reached.

During our very early studies, we used a 21-day period of induction in order to try to minimize the side effects. More recently, however, we have developed and employed a rapid induction technique whereby we have been able to build patients up to the 4 milligrams of cyclazocine in a period of only 4 days. And of more than 70 patients that have been inducted in the maintenance levels by this rapid method, there has only been one patient who did not complete the induction and we have had no patients at all who have discontinued treatment because of any secondary drug effects.

Mr. PERITO. Doctor, excuse me. How is it that we have heard so much about the alleged agonistic or side effects of cyclazocine? How did it get a bad name, so to speak?

Dr. RESNICK. Whenever you start with any new drug and there is anxiety about it, this anxiety is transmitted to the patients and I think that even if you are given an orange sugar-coated pill that you were concerned about, the patients would have bad side effects.

When you are familiar with the drug and you are comfortable with it and you can tell the patients in advance that you know about it and you know what is going to happen and you tell them in advance what they can expect to happen, it is true they do get these side effects but they are able to tolerate them, particularly when they know that once they reach this maintenance level, all of these effects will disappear.

Chairman PEPPER. How often do you give the doses to them when you reach the maintenance level?

Dr. RESNICK. The cyclazocine is effective for approximately a 24-hour period and, therefore, for it to continue its effectiveness, it has to be taken once a day.

Chairman PEPPER. Once every 24 hours.

Dr. RESNICK. Once every 24 hours.

Chairman PEPPER. And how much does it cost now?

Dr. RESNICK. How much does cyclazocine cost? I have not the vaguest idea. Sterling-Winthrop Laboratories is kind enough to supply it to us for nothing and I do not know what it costs them but it does not cost us anything.

Chairman PEPPER. Very well.

Dr. RESNICK. After the patients are discharged from the hospital, they return to the clinic generally once or twice a week, sometimes more frequently, at which time they get a sufficient supply of medication to take every day to last until their next visit.

In 1969 we presented a typological classification of opiate dependent individuals which was based on characteristics of patients who continued successfully with cyclazocine as compared to those who discontinued treatment. We found that those patients who sustained cyclazocine treatment successfully were those who usually rated themselves as not needing narcotics in order to alleviate symptoms of anxiety or in order to increase their capacity to function when they were clean.

These were also individuals who usually had an ongoing and consistent relationship with a girl, either a wife or a girl friend.

These were individuals who apparently used heroin principally as part of their social interaction, as part of their culture, as contrasted with other individuals who seem to need narcotics in order to feel or to function normally.

Since the summer of 1970, all patients who have requested cyclazocine and who did not have an active, acute medical illness, have been accepted for cyclazocine treatment.

Now, in our evaluation of our treatment results, any patient who discontinued cyclazocine without our supervision we regarded as a failure whether or not we had any information with regard to his having become readdicted. In other words, individuals who stopped because they moved out of the area or who stopped for some other reason, we counted him as a failure.

Currently, we are treating more than 75 outpatients who have been receiving cyclazocine for periods of between 1 to 4 years. Almost all of these patients who have sustained this treatment have extricated themselves from the drug culture and are leading rehabilitative lives as judged by either their working or attending school.

Mr. PERITO. Doctor, excuse me for one moment. Yesterday we heard testimony concerning the number or approximate number of patients under treatment nationally on narcotic antagonists and it was a very small figure. Do you have an estimate of the total number of addicts, throughout the country, that are under treatment on narcotic antagonists?

Dr. RESNICK. In June of last year we conducted a clinical conference which was attended by investigators who were using cyclazocine and other narcotic antagonists clinically and at that meeting, approximately 400 patients were reported upon which indicated a successful induction and maintenance rate of about 40 percent.

Mr. PERITO. Thank you. Please continue.

Dr. RESNICK. Now, during our most recent 2-year evaluation, which is from January 1969 until December 1970, we have inducted 59 new patients on cyclazocine. Of this group, 37 remain in treatment and 22 have discontinued treatment.

Now if we eliminate those patients who have been on cyclazocine for less than 6 months—it is very hard to say whether a patient is successful or not in that short a period of time and we define success as someone who has been on it for more than 6 months—we are comparing 17 patients receiving cyclazocine out of this group for 6 months or longer, with 22 patients who dropped out of treatment and on that basis our treatment success rate is approximately 50 percent.

Virtually all the patients who are on cyclazocine learned of this treatment only after their admission to the hospital. In other words, they did not come into the hospital in order to volunteer for this treatment. Few of them had heard about cyclazocine or know it to be available as a treatment prior to their admission.

Now, these experiences with narcotic antagonists are based on a theory that views narcotic addiction as analogous to a conditioned response—the addict responding to stressful stimuli in his environment with drug-seeking behavior. And in this theory the repeated use of heroin without his anticipated relief of stress or without obtaining the euphoric high should lead to extinction of this learned drug-seeking behavior.

In fact, most of our patients who have been successfully treated with cyclazocine have, during the course of their treatment, tried heroin on one or more occasions while they were out on the streets.

Having done this, and then not experiencing the high, they report to us feeling relieved at being protected from heroin effects which then enables them to clear their minds from either thinking about it or being tempted to use heroin, knowing that it will have no effect, and, therefore, will be a waste of money.

Now, the principal shortcoming of cyclazocine as a treatment for those addicts in whom it might otherwise be useful is its short duration of action, not the side effects. Effective heroin blockade rarely will exceed 20 hours, so that in the face of some acute symptoms, it is easy for a patient to skip a dose of cyclazocine on a particular day and become high on heroin, and even a patient who is highly motivated, who is symptom free, is on occasion ambivalent about taking cyclazocine on a particular day, having in mind that he can use heroin perhaps just that once or use it once in a while, and his occasionally skipping cyclazocine and using heroin typically would reestablish the cycle of an increased craving and then an eventual readdiction.

So, in an attempt to avert this cycle, we have assigned some family member the responsibility of administering each day the cyclazocine to the patient.

Chairman PEPPER. Excuse me. How is cyclazocine administered?

Dr. RESNICK. By mouth. It is available as a tablet or as a liquid. We use the liquid.

Now, when a person in the patient's family or another person who is responsible in his life has the responsibility of seeing whether or not he takes the cyclazocine, he is much less likely to miss taking it because he knows that not taking it on a particular day is tantamount to announcing in advance on that day, today I am going to go out and shoot heroin.

Of course, this procedure also serves as a reassurance to the family so that they are relieved of having to look for signs of drug use in the patient, to look for needle marks, to search him for possession of drugs when they know that the cyclazocine was taken on that particular day.

One solution to this problem of drug delivery would be the development of a long-acting antagonist, preferably one which would be effective for periods of weeks or months, which would both prevent readdition and also extinguish his conditioned dependence on opiates without the need for his daily cooperation. Such long-acting compounds have been developed for other medications. Bicillin is a form of penicillin which lasts for up to a month. Prolixin enanthate is a tranquilizer which is effective up to 3 weeks. And there are other kinds of medications in other fields of medicine that have been developed in long-acting forms. And a long-acting narcotic antagonist would not only vastly increase its therapeutic usefulness but also it would provide the possibility of immunization against addiction if it would be used in patients who are subjects of a high-addiction potential.

Mr. PERITO. Is this in terms of a vaccine, Doctor?

Dr. RESNICK. You might call it a vaccine. I do not like the term "vaccine" because vaccine implies something different than what I am talking about. Vaccine implies the development of antibodies within the system and I am talking about a medication that is effective over a long period of time.

Now, it is of special and particular interest that a long-acting formulation could serve both as a prophylactic as well as a therapeutic use. As you are aware, heroin use has become so rampant in some urban centers that it is progressively affecting younger and younger candidates. Deaths in teenagers which were once rare, are now becoming commonplace. And a long-acting narcotic antagonist—perhaps imbedding it in a plastic-like substance which can be imbedded in the body and then gradually release the medication—could render it effective for periods of up to months.

By using such a formulation early in highly exposed populations, it could drastically reduce both the deaths and the addiction rates and also provide a basis for active prophylaxis, particularly in young people.

Recently the New York Times reported that among the 300,000 U.S. servicemen in Southeast Asia, 1,000 became newly addicted to opiates, to heroin, during 1970.

I have with me an article from this week's Time magazine, dated June 7, and I would like to quote from this article.

> Between 10 percent and 15 percent of U.S. troops in Vietnam have developed a heroin habit. That represents from 26,000 to 39,000 Americans hooked. Some estimates are even higher, 20 percent or more, which means upward of 50,000 GI addicts. These figures were brought back by retiring Army Secretary Stanley Resor from a recent visit to Vietnam and were repeated last week in a study conducted by the House Foreign Affairs Committee by Republican Congressman Robert H. Steele.

Chairman PEPPER. And Mr. Murphy of Illinois, who is a member of our committee, and is here with us today.

Dr. RESNICK. How do you do, sir.

Now, I would suggest and recommend strongly the distribution of cyclazocine to all soldiers in the narcotic endemic zones as a means of effectively curtailing this epidemic of addiction. This can be done in a fashion similar to our use of atabrine for malaria during World War II.

Chairman PEPPER. Would you repeat that statement, Doctor? That last statement.

Dr. RESNICK. I would suggest and recommend the distribution of cyclazocine to all soldiers in these narcotic endemic zones as a means of effectively curtailing this epidemic of addiction in a fashion similar to our use of atabrine for malaria during World War II.

In November of 1970, a 1-year contract in the amount of $66,000 to develop such a long-acting formulation was granted to the Food and Drug Research Laboratories of Maspeth, N.Y., by the department of psychiatry of the New York Medical College with funds from the New York State Narcotic Addiction Control Commission. This contract has focused on naloxone rather than on cyclazocine, naloxone being a compound which is more potently effective in antagonizing opiate effects and also which is free of any toxic effects. Unfortunately, however, additional funds are not currently available.

The only other study of a long-acting formulation that I am aware of is that of Seymour Yolles at the University of Delaware and his work is impeded by some nontechnical problems.

Another narcotic antagonist which I believe you have already heard about, M–5050, which has been tested only in animal studies, has been shown to be between eight and 16 times more effective in its narcotic blocking capacity as naloxone and also is free of any toxic effects. This compound was tested in England and funds for its continued study in the United States are not available.

Chairman PEPPER. Doctor, you are telling us the shocking story that three of the drugs which seem to hold the greatest promise of being antagonistic drugs or immunizing drugs or blockage drugs, in respect to their longer duration, are the subject of insignificant expenditure for research?

Dr. RESNICK. Yes.

Chairman PEPPER. And here we are dealing with a problem of the magnitude in terms of lives and money and ruined careers and criminal acts, et cetera, deriving from this problem of heroin. It is shocking to hear a man of your knowledge and repute to have to make such a statement as that. I wonder what has happened to our country that we have ignored the scientific community instead of stimulating them to try to do something effective about it. It looks like we would be out looking for you and Dr. Yolles and others who are working in these fields and telling you, for goodness sake, hurry up and try to save more lives and do more about this problem.

Dr. RESNICK. I agree.

Mr. MURPHY. Mr. Chairman?

Chairman PEPPER. Yes, Mr. Murphy.

Mr. MURPHY. Doctor, have you made any attempt to bring this testimony you are giving today to the attention of the medical authorities of the U.S. military forces?

Dr. RESNICK. No. This has not been done because these reports about the epidemic of addiction in Vietnam are very recent reports.

Mr. MURPHY. They are recent reports as far as we are concerned here in the United States, but the Army has known about the epidemic proportions.

Dr. RESNICK. I did not know about it.

Mr. Murphy. Well, nobody from the Army has made an attempt to contact you regarding your studies?

Dr. Resnick. No.

Chairman Pepper. Go ahead, Doctor.

Dr. Resnick. Now, another reason for increased efforts at developing and supporting narcotic antagonists is our view that the present enthusiasm for the legal distribution of methadone or heroin is really a doubtful long-range solution and can——

Chairman Pepper. Doctor, I am sorry. I want to interrupt you there. We saw in the paper the other day that one of the members of the New York commission or authorities had suggested that heroin be made available as a maintenance drug for the addicts of heroin. And one of our members, Mr. Rangel, made some public comment about this. And others, some of my colleagues in the House, have suggested that this committee should recommend that heroin addicts be provided the necessary heroin in a lawful manner without expense to them throughout this country.

Would you for the record, give us the benefit of your opinion on this suggestion?

Dr. Resnick. My personal opinion is that it is very doubtful that this is going to be a helpful solution to the problem. My personal opinion also is that it is likely to create more problems than it is going to solve.

However, as a scientist, I would certainly be willing to support in a very limited way a study of that approach in order to be able to really test whether or not it is helpful, it is harmful, or it has no effect at all. I do not like to sit back in my armchair and have preconceived opinions that really have not been tested out. I doubt it personally, but I certainly would have no objection to it being tried under close research medical auspices and supervision.

Chairman Pepper. Are you familiar with the British program?

Dr. Resnick. I have heard about it, yes; and I have also heard that it has aggravated their problem, that it has made it worse, but I do not know the details of the British program and I do not know how any program of a research nature that might be implemented or started here could improve on it and perhaps have different results. I just do not know.

I doubt it, but I am willing to try anything as long as it is done carefully and under proper supervision.

Chairman Pepper. Is it not true that the heroin addict generally requires an increasing number of shots a day to satisfy the urge?

Dr. Resnick. He requires an increasing number of shots a day in order to continue to get the high. It reaches a certain point as with methadone whereby he requires it only to feel normal, does not get high from it.

Chairman Pepper. Go right ahead with your statement.

Dr. Resnick. As I was saying, another reason for increased efforts at developing and supporting narcotic antagonists is our view that the present enthusiasm for the legal distribution of either methadone or heroin is really a doubtful long-range solution and can only be a temporary expedient at best. These maintenance schemes provide for an increase in the number of addicted persons and an increase in the number of delivery centers. And we would expect that when thousands of addicts inhabit the cities of this Nation, that there will be an increased amount of licit as well as illicit drugs in the community and most discouraging, however, is the general failure to consider the means of eventual withdrawal from narcotics or the complacent view that treating these opiate dependent individuals with legal opiates is going to be a life-long process.

Narcotic antagonists provide a logical therapeutic and prophylactic possibility and in the face of this need, further experimentation should or must be encouraged and to that end we recommend that the Congress authorize the establishment of a special study unit or commission analogous to the Commission on Marihuana to review all the available data, and should this commission agree with our view of the data, they should firstly stimulate the development of a long-acting formulation of an antagonist with a period of action of at least 30 to 60 days; second, support the testing and development of other antagonists; and also to utilize currently available antagonists in Southeast Asia as a prophylactic for the personnel who are daily exposed to heroin in this highly endemic area.

I would think that to this end the commission should be funded with a sum to be determined by Congress. Probably the modest amount of $3 million should suffice initially.

Chairman Pepper. We thank you very much for your able statement.

Mr. Perito, do you have any questions?

Mr. Perito. Just two questions, Doctor.

Assuming proper funding, how long do you think it would take to develop an effective long-lasting antagonistic drug?

Dr. Resnick. Well, with a million dollars we could do it in a year; $3 million, in 6 months; $5 million, maybe in a month and a half. You see, we have the technical means to do this. It is merely a matter of the chemists going through the procedure of testing it out. I mean, it does not require any new, unusual discoveries. It is merely a question of trying out different vehicles to see which one works and what the dangers are.

Chairman Pepper. Excuse me, Doctor. This committee, I think, was among the first groups in the Congress to recommend a commission to study marihuana. We called on the Department of Health, Education, and Welfare to have the Surgeon General make a study, a thorough authoritative study of marihuana, some 2 years ago and later on we supported the setting up of the Commission, and that is a very desirable procedure in many respects.

Do you think the same job could be done in perhaps a shorter length of time if we provided the money to the National Institute of Mental Health, an existing agency, and gave them the power to encourage these researchers that you are talking about?

Dr. Resnick. Yes. I would think that if some subgroup within the NIMH was dedicated to this purpose; yes.

Chairman Pepper. Mr. Mann?

Mr. Mann. Doctor, your program has been conducted as a maintenance-type of program. Have you experimented with the termination of treatment and supervision of the individual to see about a permanent cure?

Dr. Resnick. Yes. We have experimented with it. There have been a number of individuals who have been on our cyclazocine program over a period of time, from 1 to 3 years,who have then come to us and stated that they feel they have during this period of time, been free of using narcotics, stabilized in their lives, do not have the need for narcotics and would like to try without the use of cyclazocine.

There are seven such individuals who we withdrew from cyclazocine, none of whom have become readdicted to date. There were two individuals who requested withdrawal from cyclazocine who shortly after they were off cyclazocine came back and said, "I have the urge to use drugs again; please put me back on cyclazocine," and we did so.

Mr. MANN. So, there is definite potential for the reordering of one's life, perhaps, while under a supervised program?

Dr. RESNICK. No question about that. I think the biggest hope about cyclazocine is that it is not addicting. The individual does not get any kick from it. There is no illicit market for it and he is not addicted to it. It is a very useful tool or crutch for him to be able to conduct his life without heroin and hopefully to be able to reach a point where he no longer has the need to use heroin.

Mr. MANN. Thank you.

Chairman PEPPER. Mr. Blommer?

Mr. BLOMMER. I have no questions.

Chairman PEPPER. Mr. Steiger?

Mr. STEIGER. Thank you, Mr. Chairman.

What are the side effects of cyclazocine?

Dr. RESNICK. The side effects of cyclazocine depend upon how fast we give it.

Mr. STEIGER. What is the worst that can happen? I mean, in the 4-day period.

Dr. RESNICK. The usual, most common side effect in the 4-day period is the patient experiences what he describes as a high and he likens this to being similar to a pot high. Some of them say it is like LSD. Most of them enjoy it. They do not find it uncomfortable or unpleasant.

It is of some interest that we offer them naloxone as a means of reducing the intensity of these side effects. Now, naloxone has that propoerty. So that the procedure is to tell the patient that he is going to be built up on cyclazocine in increasing doses over 4 days and that during this 4-day period he will experience some side effects, none of which are harmful or dangerous, that if he finds that these side effects are too strong for him, if he wishes, he may request tablets, naloxone, which will help to reduce the intensity of these effects, and about 50 percent of the patients go through the induction without using naloxone. The other 50 percent will use naloxone sometime during these 4 days and they do report after they take the naloxone, within about a half hour to an hour the intensity of this feeling subsides.

Mr. STEIGER. If there is an interruption in the administration of cyclazocine and they get back on it in a month, after being off it a month, do they experience this again? Would you anticipate that they would?

Dr. RESNICK. If they have been off cyclazocine for a month and then need to be reinducted on it?

Mr. STEIGER. Yes, sir.

Dr. RESNICK. Exactly the same thing happens.

Mr. STEIGER. Knowing the research community as you do in this particular area, and also knowing the cumbersomeness of this body and the bureaucracy and the apparently headless effort that is being conducted to develop these drugs, do you think there would be any merit on a very pragmatic basis of a prize established—a bonus or reward of a significant amount of money, a million dollars, perhaps—for the achievement of an antagonist that would last not less than 30 days and whatever the other criteria are that logic would dictate? Do you think that that would produce a response from the research community?

Dr. RESNICK. Yes; I think if they were paid for their efforts they would do the job.

Mr. STEIGER. Assuming they would only be paid if they were successful, obviously, and if they were first. I do not mean a contract now.

Dr. RESNICK. I would not presume to answer that question.

Mr. STEIGER. All right. Winthrop is furnishing you with the cyclazocine; right?

Dr. RESNICK. Yes.

Mr. STEIGER. Do you know if Winthrop is doing anything to make cyclazocine a longer acting substance?

Dr. RESNICK. To my knowledge, no.

Mr. STEIGER. Would it be reasonable to assume that if there were some commercial incentive for them to do so, that they would do so?

Dr. RESNICK. It is reasonable.

Mr. STEIGER. Have they the research capability to do so?

Dr. RESNICK. I do not know.

Mr. STEIGER. Do you know of any laboratory that has the experience or any research organization that has the experience, to make cyclazocine a longer acting substance?

Dr. RESNICK. Oh, yes. I know, as I stated, that we have arranged a contract with a particular biochemical laboratory for this purpose. I am sure there are many throughout the country who have the personnel and the technical know-how to be able to proceed with such studies. I am not a chemist but I do not think the chemical problems are that difficult.

As I said, I think we have the knowledge. We just need the funds to pay people to go through the rigor of testing the different vehicles.

Mr. STEIGER. You apparently have not discussed this possibility with Winthrop but you are in a position to, at least speculate. Why isn't Winthrop interested in extending the effectiveness of this drug, the effective timespan of cyclazocine? Is it not commercially valuable?

Dr. RESNICK. I wish you would ask Winthrop. I can only guess.

Mr. STEIGER. I suspect we might. (See exhibit No. 32.)

Dr. RESNICK. My guess is that it is economic considerations. It is an expensive thing to have to do and if they want to do it, then they want to feel that there is some remuneration for it.

Mr. STEIGER. I have no further questions, Mr. Chairman.

Chairman PEPPER. Mr. Murphy.

Mr. MURPHY. Thank you, Mr. Chairman.

I agree with Mr. Steiger's suggestion that we give an inducement to some chemist or doctor or some laboratory to come up with a cure for this. I am all for taking the lady down from the Capitol and replacing her with whoever comes up with that cure, as it is such an important problem. And I cannot understand why none have not pursued this with more vigor and funded the program if what you say is true, Doctor. I think a lot of us here in Congress are derelict in our duty and have been derelict in our duty in the past. I know this may sound self-serving because I am a member of this committee, but I commend the chairman, Mr. Pepper from Florida, and the members of the committee for undertaking this study because it is long overdue. I commend you, Doctor, for your work and I agree with Mr. Steiger that it is about time the Federal Government took a lead in this program.

We owe a responsibility to a generation of young Americans that we are not only losing in Vietnam but we are losing back here. This sounds like a Fourth of July statement, but I really feel it and I know that members of the committee feel it. Again, I want to congratulate Mr. Pepper for providing the leadership for this study and this testimony.

Dr. RESNICK. I will second that.

Mr. STEIGER. I wonder if the gentleman will yield. I thought the gentleman might pursue the military aspect of this.

In issuing cyclazocine to the military—much as you made the equation of Atabrine, and, of course, we did it as far as venereal diseases, et cetera; so it is not a unique idea—I wonder what would be the practical difficulties? Is cyclazocine, for example, readily available as far as you know? Would it be available in sufficient quantities?

Dr. RESNICK. To my knowledge cyclazocine is available and could be easily made available. We have not had any trouble. I mean, Sterling-Winthrop has supplied us with as much cyclazocine and other individuals throughout the country who are using it, with as much say we need. There has never been any problem with that.

Mr. STEIGER. All right.

Now, with your clinical knowledge of cyclazocine in its present state of the art, and recognizing the side effects as you do probably better than anybody in the country, do you anticipate that when given to a great number of people as you are suggesting, it would create any particular problems? The side effects, the high, whatever it is?

Dr. RESNICK. I can only answer the question on the basis of my experience and my experience has been with all of the individuals whom I have treated, all of whom, of course, are addicts. I do not know how a nonaddict is going to react to cyclazocine. These are all addicts who have withdrawn from heroin, who have been drug free for a period of time ranging from a week to several weeks and have been placed on cyclazocine. If we build them up on the cyclazocine very slowly they experience minimal or no side effects. If we build them up on the cyclazocine more rapidly they do experience these side effects. But in 100 percent of the cases these side effects diminish, disappear. We have not had a single case of any patient who stopped taking this drug, once he has been built-up, because of side effects. What the results will be in some other population I do not know.

Mr. STEIGER. And there have been no deaths; is that correct?

Dr. RESNICK. No deaths. No illness. No harmful effect.

Mr. STEIGER. Thank you.

Chairman PEPPER. Mr. Winn?

Mr. WINN. Thank you, Mr. Chairman.

Along that same line, in a paper that I believe you and three other doctors presented February 16 and 17 of this year in Toronto, Canada, you have used some of the same information in your testimony today. You made the statement or the statement was made here:

> Efforts at developing a long acting antagonist are imperative until a more logical means of preventing opiate addiction is developed. The present enthusiasm for the legal distribution of methadone or heroin is a spurious solution. Methadone or heroin maintenance substitutes a legal addiction for an illegal one, reducing neither the risks of addiction nor of death.

In other words, methadone is not safe; right?

Dr. RESNICK. I cannot give you the exact figures but in New York City there have been a number of methadone deaths.

Mr. STEIGER. Here, too.

Mr. WINN. Yes; there have been some here, too, of course, and I suppose the other large cities where there is a methadone program.

Dr. RESNICK. I want to emphasize I am not knocking methadone. I think it is very useful.

Mr. WINN. No. I understand you are not knocking it, nor am I, but at the same time I think what you and the other doctors have pointed out in that paper which you gave, and what I am trying to bring out, is that the risks of methadone maintenance are about the same as heroin maintenance as far as deaths are concerned.

Dr. RESNICK. I am not sure that statement is true, Mr. Winn. It is true that patients do take overdoses of methadone and die. It is true that individuals who are not bonafide members of methadone maintenance programs get methadone from people who are on these programs, and die.

Mr. WINN. They also secure them from licensed physicians, which would possibly give them the overdose that would cause them to die.

Dr. RESNICK. That is a possibility. Now, it is also true that many heroin addicts die not only from an overdose of heroin but they die from concurrent illnesses that result not directly from the heroin but from other illnesses that they contract as a result of their using heroin.

Mr. WINN. Now, the gentlemen that testified with Dr. Kurland, who were on naloxone, testified that they had a loss of appetite. That was about the main reaction they felt. Is that same loss of appetite prevalent with users of cyclazocine?

Dr. RESNICK. Loss of appetite is one of the side effects but it is also, as all the others, one that goes away, does not persist. It does not occur in every patient. It does occur with some.

Mr. WINN. I am sorry.

Dr. RESNICK. It does not occur with every patient. But any patient who has been on cyclazocine maintenance, taking it regularly over a period of time, in my experience, whatever side effects he experienced initially, all of these side effects disappeared and they tell us they take this cyclazocine and have the same effects as if they drank a glass of water.

Mr. WINN. Then should there be, or do you in your experiments, have a nutrition substitute to counteract that loss of appetite or are we really talking about anything that is that serious?

Dr. RESNICK. It is not serious.

Mr. WINN. Not that serious.

Dr. RESNICK. No.

Chairman PEPPER. Dr. Resnick, again, I want to repeat our deep thanks to you for the magnificent contribution on this subject and to this hearing. We thank you very much.

Dr. RESNICK. Thank you.

Chairman PEPPER. The Select Committee on Crime of the House has now concluded the second phase of our public hearings on the research aspects of heroin addiction in the United States. What we have heard for the past 3 days both saddens me and gives me reason for hope. I am saddened by the low priority research that heroin addiction has had in the past. I am saddened that at the present we can only offer such limited hope to those addicted to heroin, their families and their communities, but I am hopeful that the testimony we have received today and throughout this hearing bolsters this hope. That with the necessary commitment on the part of Congress, we can rapidly increase our capacity to deal with the heroin epidemic.

I have found from a good many years' experience in the Congress and as a citizen of this country that this great country can do almost anything it wants to. When we wanted to find the atom bomb, the President of the United States gave almost unlimited spending power, and so did the committees of the Congress and the Congress to that effort. When the President committed us to go to the moon, we did not ask how much it was going to cost. We said we were going there, and we went. So, I found that if we make a commitment, a determined commitment, this great country can do almost anything it wants to do.

I believe that that commitment must be expressed in terms of dollars to finance research, and an expressed national will to solve this problem now, not 10 years from now after so many more have died; but now.

Far too much lip service is paid to fighting heroin addiction and a lot of it is made on the part of the Government of the United States. We need action, and a real sense of continuing urgency until this problem is solved, not some momentary flurry of excitement when periodic disclosures gain currency in the press.

I am also hopeful that we can conquer this menace because the testimony we have received indicates that scientists are developing some potentially successful leads that may make heroin addiction a thing of the past.

Look at the exciting prospects that are revealed here by Dr. Resnick today, that we might develop a prophylactic to give the young people, the way they get a vaccination for smallpox or typhoid, give them an inoculation and some prophylactic drug like this that would prevent them from ever being hooked on these terrible drugs.

We must support these scientists to the fullest. The general cutback in Federal funding of scientific research—and incidentally, my information is that the Russians are not cutting back on any aspect of scientific research—which is causing great harm to all fields of research is a pitiful example of false economy. What I meant to refer to is that they tell me in the field of space and oceanography, in building a great navy and building a maritime power, and many other areas with which we are competitive with them, their expenditures are not being reduced. I understand they are going right along on an inclined plane.

Cutting back as we are cutting back in so many areas of scientific research is false economy, and failure to make wise investments in so many areas is also a pitiful example of false economy. If heroin costs this Nation almost $4 billion a year in direct and indirect money costs—I am not talking about life costs, the latter largely a cost of crime which is an economic saving—and not at least doubling, tripling or even quadrupling our research efforts, clearly is a shortsighted and very costly economy.

It is my hope that the Congress will not be a party to such shortsightedness.

After we have had an opportunity to review the transcripts of these hearings and study the valuable suggestions we have received and, of course, consult with knowledgeable people, this committee will make recommendations to the House of Representatives on what we can do according to knowledgeable people to combat drug addiction—how we should spend our money, what our priorities should be, and what we should do. A quarter of a million drug addicts—these are American citizens—their families and the Nation demand that we do no less. Not to speak of the danger that these addicts constitute to the lives and the property of other citizens of our country.

Now, just one announcement I want to make. One of the fine groups in the greater Miami area, part of which embraces my congressional district, has been one group we call Operation Self-Help. Those people have gone out and begged and tried to persuade people to put up money, voluntary contributions. They have appealed to the State of Florida, to the Government of the United States, for aid and they have received some assistance, very small, through the State of Florida, from the Federal Government, but they have done a magnificent job in the treatment and rehabilitation of many heroin addicts in the greater Miami area, and that operation is Operation Self-Help, and the founder of it and the great leader of it has been Father O'Sullivan, who honors us with his presence here today.

I will ask if you will stand up, Father O'Sullivan. I would like them to see you. [Applause.]

He is accompanied by the Honorable Mr. Matthew Gressen, who is the president of the Concept House, which is an integral part of this great treatment and rehabilitation program.

I will ask you to stand up. [Applause.]

And he is also accompanied by two others who have had a large part in this program, have been founders or cofounders with them, the Rev. Clint Oakley, one of my fellow Baptist. I will ask you to stand up. [Applause.]

And the other one, a cofounder and leader in this drug program, Mr. Roger Shaw. [Applause.]

I thank the committee and I thank all those who have been here with us.

The committee will adjourn.

(Whereupon, at 1:10 p.m., the hearing was adjourned, to reconvene at 9:45, June 23, 1971.)

NARCOTICS RESEARCH, REHABILITATION, AND TREATMENT

WEDNESDAY, JUNE 23, 1971

House of Representatives,
Select Committee on Crime,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m., in room 2359, Rayburn House Office Building, Hon. Claude Pepper (chairman) presiding.

Present: Representatives Pepper, Brasco, Mann, Murphy, Rangel, Wiggins, Winn, Sandman, and Keating.

Also present: Paul Perito, chief counsel; and Michael W. Blommer, associate chief counsel.

Chairman Pepper. The committee will come to order, please.

The Select Committee on Crime today concludes a series of hearings which have examined virtually every aspect of the drug addiction and abuse crisis in America today. We have examined the possibilities of banning the importation of crude opium into this country, and the availability of synthetic analgesics to replace opiate drugs. We have examined the difficulties of halting the smuggling of heroin into this country, and the possibility of using our space age technology in this fight. We have examined the successes and failures of methadone as a maintenance drug, and the new antagonist drugs still being developed and tested.

From its creation in 1969, the Select Committee on Crime has had a continuing keen interest in drug abuse. We have often been asked why a crime committee should concern itself with drugs. Aside from the obvious rejoinder that drug abuse is usually by definition a criminal act, we believe there are far more pressing reasons for our interest and work in this area. The nexus of drug abuse to other criminal behavior, only alluded to when we first began our investigations, has now been testified to by every respected law enforcement authority. While statistics in this area are inexact, it seems clear that in major cities about half of all property crimes are committed by addicts who are compelled to steal to supply their daily fix. And Dr. Robert Du Pont, director of the District of Columbia's Narcotics Treatment Administration, told our committee recently that perhaps half of all homicides are committed by addicts. So when we are talking about drug abuse we are talking about what is probably the largest single cause of crime in America today.

Our investigations and hearings have taken us across the length and breadth of America, and everywhere we have heard much the same plea: Help us fight this grave menace to our society. The magnitude of heroin addiction in America knows no jurisdictional boundaries; local, State, even national borders, provide no shield to this deadly traffic.

There are those who say that there will always be a supply of heroin as long as there is a demand for the drug; others claim that as long as heroin is available, the demand for it can always be created. In fact, both statements are true, and we must take this into account in any effort to deal with the problem.

It is clear, in the first instance, that we cannot reasonably expect substantially to halt the smuggling of heroin into this country. Short of the imposition of police state techniques, a virtual sealing of our borders, heroin will reach its customers on the streets. We have been told by the authorities of our Government that we are able to seize only about 20 percent of the heroin that is smuggled into this country.

But the same supply, as well as satisfying demand, also creates additional demand. For the classic way for the heroin addict to support his habit is to become a heroin pusher himself. And as long as addicts have enough heroin to push in order to pay for their own habits, we will see an ever increasing number of new addicts, for the market is virtually limitless.

What can we hope to do to fight this menace? Last year, this committee urged that the United States take the lead in working for the eventual elimination of opium poppy production wherever such production takes place. We were told we were dreamers. Well, if to work toward an admittedly long-range goal that holds some promise of success means to be dreamers, we gladly accept the title. But is this goal so impossible of attainment, or has our own skepticism worked to ensure our failure in this endeavor? I was pleased to read the other day that the Prime Minister of Turkey has offered his legislative or parliamentary body legislation that would substantially reduce the opium crops, something we recommended long ago. We are pleased to learn that one house of the Turkish Parliament has already passed the proposed legislation. We applaud his actions as a new awareness of the world wide nature of heroin abuse. So are we dreamers after all? A positive approach by the United States may well be one of the key ingredients in fostering a similar attitude by other members of the world community.

A substantial portion of our energies have gone to an examination of the research underway to produce drugs for treating addicts. Although we must be mindful of the distinction between curing an addict of his addiction and reintegrating him into society, as a committee on crime, we are obviously anxious to fully explore any treatment modality which offers the hope of reducing crime.

We have carefully examined the use of methadone as a maintenance drug, and while we believe it is far from a panacea, we do believe that it is the best drug now available on a large scale for treating a substantial segment of the addict population. But we have also received testimony about the new antagonist drugs, which curb an addict's craving for heroin. We believe these significant drugs have been slighted by those who have the funds to foster the development of treatment modalities. We have heard testimony that for about $5 million—a mere pittance given the magnitude of the problem—we could possibly develop a long-lasting nonaddictive antagonist. You will recall Mr. Ingersoll of the Bureau of Narcotics and Dangerous Drugs testified before our committee recently that he estimated that herion costs our country between $3.5 and $4 billion a year. I say this $5 million is a mere pittance given the magnitude of the problem. Not to spend this money verges on malfeasance. When we submit our report to the Congress, we intend to ask for a crash program to develop such an antagonist. I believe this would be an investment that would pay immeasurable dividends.

The President, in announcing his new drug program last week, has wisely recognized the national drug abuse and drug dependence crisis to which our committee has devoted a substantial portion of its time during the past 2 years. Certainly the administration is to be commended for recognizing that drug abuse has "assumed the dimension of a national emergency." The President is also to be commended for recognizing that the drug user, if submitted to proper treatment, can be reclaimed as a responsible member of society. However, I am seriously concerned that the process of reclamation will fail unless more money is committed to the building and adequate staffing of treatment and rehabilitation facilities on a nationwide basis.

Our committee was particularly pleased that the President chose Dr. Jerome H. Jaffe of Chicago to head this new office in the executive branch of the Government and that he was given the authority that Dr. Jaffe was given. We all heard and were substantially impressed with Dr. Jaffe's presentation before our committee on April 28, 1971. I am especially pleased that the President has chosen a man of impeccable academic credentials who is not inextricably associated with a limited rehabilitation philosophy or treatment modality. Dr. Jaffe's sagacity in establishing a multimodality treatment approach is well known to our committee. Additionally, Dr. Jaffe is a researcher, who by his own admission, longs someday to return to his laboratory.

I sincerely hope that the President, in light of Dr. Jaffe's expertise. will especially earmark additional moneys for basic opiate research. It is my personal judgment that the moneys presently earmarked for research would not enable diligent and committed scientists to do the type of research that is necessary to develop more effective and longer lasting blockage and antagonist drugs. The President has failed to set forth, as specific line items in his appropriations amendment of June 21, 1971, such amounts as I feel will be necessary to expand on and accelerate the study of drug effects, abuse, prevention, and treatment. I take note of the fact that the President has reputedly told Dr. Jaffe and publicly announced that if more money is needed, it will be provided. I think indeed it would appear to be imperative and I hope that the President will recommend to the Congress adequate funding for this program.

The President has, however, seen fit to request specific sums for research into plant eradication and opium detection. It is my fervent hope that the President will request additional sums for the explicit purpose of carrying out more substantial basic research into the basis of opiate addiction and the effects of drug dependence upon the body.

Furthermore, our committee has found that additional research must be done, and must be done immediately, to develop safe and effective nonaddictive synthetic substitutes for morphine and codeine. It seems to me that in a country where last year the gross national product reached $976.5 billion, we can well afford to spend something more than the $11 million in new money presently scheduled by the Office of Management and Budget for pure research conducted under the direction of the new Special Action Office for Drug Abuse Prevention. If our country can tolerate a defense budget which reached $76.4 billion during the past fiscal year, we can obviously support basic drug research far in excess of the relatively paltry sums presently requested in the recent appropriations message which the President has forwarded to Congress.

I am deeply concerned that we must leave no rock unturned in our efforts to answer some of the basic questions regarding drug abuse and drug dependence. The state of our knowledge in this area has been shockingly described as primative by Dr. William Martin at our last hearing. How can we possibly justify to our constituents and to our Nation the fact that we have for so long denied basic science the money and tools to answer so many of the unanswered questions about this menacing epidemic? How can we in this Congress intelligently legislate in these areas when we don't know basic answers to so many basic questions about how herion, cocaine, amphetamines, and barbiturates affect the brain, the central nervous system and the functioning of the basic body organs? I sincerely hope that this Congress will aid the President and his outstanding nominee for the office of Director of the Special Action Office for Drug Abuse Prevention by providing adequate funding which will enable Dr. Jaffe and his associates properly to direct, simulate, encourage, and accelerate the type of research which is necessary if we are seriously committed to solving this national calamity.

I am indeed pleased that the President has recognized that there is a need for overall coordination and planning of the present multiple Federal efforts in the areas of treatment and rehabilitation. At present, nine Federal agencies unevenly share this responsibility without the benefit of a comprehensive plan of attack. A comprehensive approach on the Federal level is absolutely necessary if our Government is seriously committed to a national drug abuse offensive. To the best of my knowledge, the administration is only requesting $91.3 million in new money for treatment and rehabilitation for fiscal year 1972. This sum, added to funds already provided for treatment and rehabilition, amounts to a total of $195.3 million for the coming fiscal year. It is difficult for me to understand how this limited amount of Federal money can possibly be truly responsive to our national drug addiction crisis. However, the President has said, as I have said, that if additional sums are needed after an analysis of the problem by Dr. Jaffe, such sums will be requested by the administration. I for one, think the Congress has a substantial responsibility in this regard. I see no reason why the Federal Government should not be able to say that it will be able to offer treatment to every drug dependent person who desires such treatment. At the present time we cannot make good on this representation. I seriously doubt whether the present request for $91.3 million in new money will allow us to make that representation next year. How can we possibly explain to the Nation that persons requesting medical aid for their addiction are denied such aid because we have not provided sufficient treatment and rehabilitation facilities?

Our investigators have reported to us several instances throughout the country where addicts have sought treatment at hospitals and clinics, but have been denied treatment because of inadequate facilities. How can we possibly explain away the crimes which these addicts are forced to commit in order to feed their voracious habits? How can we possibly justify the overdose deaths of addicts who have requested, but have been denied medical aid? A humane society cannot justify such inequities.

I respectfully submit that Congress cannot shirk from its responsibility in this regard. Our record is replete with evidence showing the need for a tremendous expansion in our medical facilities to handle drug dependent persons who seek help. Since the need is clear, Congress must respond adequately.

Today we will examine various State and local rehabilitation programs for heroin addicts, and what more the Federal Government can do in this area. The need for adequate rehabilitation programs and facilities cannot be overemphasized, for any success we enjoy in decreasing the supply of heroin on the streets, or finding drugs that block the craving for heroin, only intensifies our need for massive and effective rehabilitation programs.

When we talk of rehabiliting addicts, we are again talking of reducing crime. What lasting benefit does society receive when we simply detoxify an addict and send him back into the streets of his past, without the ability to earn a meaningful livelihood, without a decent place to live, without, in short, those ingredients Americans view as essential to self-respect? A lack of self-respect has often been cited as a causative factor in drug abuse. Will the detoxified addict, without a job, without a decent home, long remain a former addict? There is little reason to expect that he will. And if he returns to heroin, he also returns to crime.

It is with this in mind that we are today examining these programs and the involvement of the various States in this endeavor. While I believe that the Federal Government must play a significantly larger role in combating the addiction crisis, the important role played by the States cannot be overemphasized. Therefore, we are today seeking the advice of Governors and other State officials. We will lean heavily upon the advice of these men as we draw up our recommendations to the Congress. We are honored that Gov. Linwood Holton of Virginia, Gov. Jimmy Carter of Georgia, Gov. Milton Shapp of Pennsylvania and Lt. Gov. James H. Brickley of Michigan have come here today to share with the committee the experience of their States in dealing with narcotic addiction. We will also hear from Commissioner Howard Jones, vice chairman of the New York State Narcotic Addiction Control Commission, a man charged with grappling with the highest incidence of heroin addiction in the Nation.

We will also take testimony from Dr. John Kramer, a distinguished psychiatrist who has devoted much of his time and energy to the problems of drug addiction and abuse, through various programs in the State of California.

Our first witness this morning is Commissioner Howard A. Jones, vice chairman and I believe designated chairman of the New York State Narcotics Addiction Control Commission.

Mr. Jones was appointed to the commission by Governor Rockefeller in May 1970, became vice chairman in November. He is now the chairman designate of the commission.

Mr. Jones was a member of the State board of parole from June 1963 until May 1970. He served from 1961 to 1970 as a member of the Temporary State Commission on Revision of the Penal Law in the Code of Criminal Justice. From 1960 to 1963, in New York County, where he gained considerable experience as a trial lawyer in criminal jury trials and was also in charge of narcotic investigation and prosecution.

Commissioner Jones attended the City College of New York and New York University and obtained his law degree from Saint John's University Law School in 1951.

Mr. Jones, we are very grateful for your appearance here today.

Our chief counsel, Mr. Paul Perito, assisted by our associate chief counsel, Mr. Blommer, will inquire.

Mr. Perito. Thank you, Mr. Chairman.

Mr. Jones, you are accompanied by two gentlemen. Would you kindly introduce them to the chairman and members of the committee?

STATEMENT OF HOWARD A. JONES, COMMISSIONER, NEW YORK STATE NARCOTIC ADDICTION CONTROL COMMISSION; ACCOMPANIED BY DR. CARL CHAMBERS, DIRECTOR, DIVISION OF RESEARCH; AND RAYBURN F. HESSE, SPECIAL ASSISTANT TO THE CHAIRMAN, FEDERAL-STATE RELATIONS

Mr. Jones. Yes, Mr. Perito. On my right is Dr. Carl Chambers who is the director of our division of research in the New York State Narcotic Addiction Control Commission. Dr. Chambers brings with him a longer list of credentials than I think we have time for, as you will see when you get into the various reports that we will submit to you for your consideration as part of this presentation.

On my left is a gentleman familiar to you, I think, Mr. Rayburn Hesse, who is the special assistant to the chairman for Federal-State Relations of the New York State Narcotic Addiction Control Commission.

It is a privilege, Mr. Chairman, to have this opportunity on behalf of Governor Rockefeller, the State of New York, and our commission, to present our views to you on the urgent problems of narcotics dependence and addiction.

Our commission congratulates you, Congressman Pepper, on the leadership, the imagination, and the dedication you have given to this complex cause, especially your efforts to control the various psychotropic substances, for these, as you know, are the principal drugs of abuse in the Nation; also for your efforts to bring about more effective controls over the production of narcotic substances.

We are particularly proud, even though he is absent, that a New Yorker, Congressman Rangel, is a member of this committee. As you know, he represents perhaps the most highly impacted area of crime-related drug abuse in the country.

Chairman Pepper. Mr. Jones, I accept your compliment on behalf of our committee. We have a very dedicated committee. We appreciate your kind words.

Mr. JONES. With your permission, Mr. Chairman, I would like to depart from the usual practice, that is followed, I suppose, at these hearings, to the extent of abondoning the text of the testimony that we have prepared, copies of which were sent down in advance.

Mr. PERITO. Excuse me, Commissioner.

At this point, Mr. Chairman, may the entire text of Commissioner Jones' statement be submitted as part of the record?

Chairman PEPPER. Without objection, it will be admitted in the record.

Mr. JONES. For the record, I would like to mention that there were some slight revisions made in the copies that were sent down previously. Revised copies have been submitted this morning and I ask your indulgence and express an apology for the late submission.

We are especially pleased, Mr. Chairman, that your committee is confining its attention at these hearings not just to the problem of addiction and treatment, but to the larger problem of the overall manifestations and ramifications of narcotic dependence and drug addiction. As you know, we are confronted with a nationwide——

Chairman PEPPER. Excuse me, just a minute. We have two very fine members from New York, Mr. Frank Brasco and Mr. Rangel. Mr. Rangel was detained. He will be along shortly.

Mr. JONES. I am sure I did not mean to——

Mr. BRASCO. That is perfectly all right.

Mr. JONES. I think, Mr. Chairman, it will be helpful in our presentation, mindful of your tight schedule this morning and the fact that several Governors will be appearing to testify, if we simply summarize the presentation that we would like to make, following which, and again with an apology, we have submitted an addendum to our testimony which we thought would be necessary and helpful in connection with the recently announced programs that emanated from the White House this past week.

I would like, therefore, to present our testimony in these four main categories: First of all, a summary of the text that we have submitted; some comments that are contained in the addendum with regard to the President's new proposals; next, the implementations that we think are reasonable, perhaps even feasible, for this Congress to consider; and finally, to submit the various studies and reports that we brought along, authored largely by Dr. Carl Chambers, and with your indulgence, I would turn over the latter part of the presentation to Dr. Chambers.

I think it will be helpful if we focus the discussion, Mr. Chairman, on the excellent frame of reference that the President made in his news releases recently. I am referring, of course, to the promise of the administration that the effort indeed the highest priority, will be given at all levels of Government, not just to drug addiction as it affects returning veterans, but as it affects the Nation as a whole. At the time we prepared our text, our testimony, we did not have the details of the President's new program and that is why, as I said, the addendum was prepared. I think it is absolutely essential that the Federal Government provide for the treatment of returning veterans because State programs do not currently have the capacity to absorb this new group of addicts. As you will see in the materials that will be submitted to you, there is an estimated total of some 1,200 veteran addicts among the drug addict population in New York today, and I think it is significant when you consider that out of the total, the estimated total of about 110,000 addicts in the State of New York, already 1,200 of them, again an estimate, are returning veterans. It is our fondest hope, Mr. Chairman, that the promise of policy that has recently been enunciated will be transformed by this administration and by the Congress into the performance program. We, of course, have some pretty fixed ideas as to the directions in which these programs should move and to things that should be done, perhaps to quickly implement the programs that have been announced, with the help, of course, of this Congress.

Chairman PEPPER. Mr. Jones, do you know that one of our members, Mr. Morgan Murphy of Illinois, was one of the Representatives who, with Representative Steele, made the report on the world heroin problem; his particular interest is the problem of addiction among our veterans in the Indo-China war?

Mr. JONES. Yes, I heard of Mr. Murphy and his trip and his report. I look forward to some meaningful exchanges, as a matter of fact, between our commission and the Congressman.

Because of the large number of heroin addicts in the State of New York and, indeed, in the country and because of the fact that the matter of heroin addiction carries with it such a large impact on the rest of society with regard to crime and the effect of crime, understandably, much of the concern, both at the Federal and State levels, has been directed toward the heroin addict. The first observation we would like to make, of course, is one that I am sure is familiar to the gentlemen of this committee. That is that heroin addiction is merely a tiny fraction of the total problem of drug abuse in the Nation. I think it would be helpful, therefore, if generally speaking, we thought in terms—that is, for defining program differentiations—if we thought in terms of four main categories of drug abusers: The experimenters, the recreational or social users, the involved users, and the disfunctional abusers—the latter group, of course, including but not limited to narcotic addicts.

Certain essential facts, I think, must remain in the forefront of our thinking and our planning. One outstanding fact, Mr. Chairman, is that the drug abuser today is younger, much younger than he was even 4 or 5 years ago. He is much more inclined to take risks and more importantly, he has been found to be a multiple drug user.

Just 4 years ago, for example, when our commission first began operations, the average age of the heroin addict in New York was 29. Today, that median age is estimated at 21. Today, 35 percent of the 12,000 addicts under our direct jurisdiction—and by "our," I mean the commission itself—are under age 20 in the State of New York. Similarly, I think your own studies will show that whereas only 15 percent of the addicts admitted to the Federal hospital at Lexington in 1936 were 20 years or younger, today 53 percent of them, as I am sure you know, are under age 19.

I think these statistics simply highlight what we all know to be the clear evidence of a growing epidemic, really a pandemic, in the country today.

Mr. PERITO. Based upon your vast experience do you believe that pandemic would be a more proper classification than epidemic?

Mr. JONES. Indeed I do, and I think recent developments will bear that out, especially with the incidence of returning veterans, coming back from overseas, going back to various parts of the country that hitherto, perhaps, did not have the sad experience of having among their population young drug addicts, especially the hard-core drug addicts.

Another change that has taken place, gentlemen, is the change in the nature of the drugs that are being used and abused, also substantial changes among the various types of users. These users today include top corporate executives, middle management, clerks, salesmen, white- and blue-collar workers, housewives, as well as young people. And as you will see again, referring to studies that we have made, the matter of drug use and drug abuse by people actually on the job is a really startling fact to consider. We have defined a major problem of drug abuse in business and industry at all levels of work, including a significant percentage of employees who abuse drugs while actually on the job. Now that business and industry are involved, we look for added involvement from that sector of the public in the fight against drug abuse.

Another major change, gentlemen, that we have found to have occurred over the past few years is that more and more people are becoming involved with drugs as a matter of recreation, believe it or not. Hence, it is no longer entirely a medical problem with which we have to deal; it is becoming more and more also a matter for social workers and other disciplines to address themselves to.

These are essentially some of the changes in direction and programs that we are undertaking in New York at the moment and urge for your consideration, a similar change of direction and focus on the part of the Federal Government.

We must recognize, gentlemen, that there are adaptive as well as escapist abusers, persons who use drugs to cope with life and to adjust to the ordinary problems of society, aside from the thrill seekers and other types that we are used to discussing. Not all drug abusers, as you know, are criminals. As a matter of fact, the National Institute of Mental Health predicts that 65 percent of the experimenters with marihuana will use the drug only once or twice, and the majority of the remainder, not more than 10 times in their lifetime.

Recent research by our commission suggests that of 100 students in a given high school, 50 will experiment with drugs at some time or other during their school career. As a matter of fact, the study further reveals that 50 percent of the average graduating class from high school has had drug experience. So that if this number, this large number of high school graduates going out into business and industry or going on into college, where the figures are substantially the same as those people going out into business and industry, there is no reason to assume that they are suddenly going to discontinue their experimenting with drugs. So that what we are doing, gentlemen, is we are graduating 50 percent of our classes these days right into business and industry as drug experimenters, some of whom, of course, will later on become disfunctional addicts.

As I said, gentlemen, there are a number of studies that we will be submitting to you. I do not want to burden you with mere recitation of what each one contains. But one study that you will see indicates from facts developed by Dr. Chambers and our research unit that of every addict that was studied, every single one had engaged in some criminal act in his lifetime. Yet only 79 percent had arrest records. I think that is significant in terms of the total projection of what drug abuse and drug experimenting means with regard to crime statistics. The fact is, of course, that there are untold numbers of crimes that go unreported. Even among those are are reported, the studies indicate that they are largely unrecorded. It is estimated, as you will see, that perhaps only once out of every 120 times that a convict-addict, if I can use that phrase, is arrested and convicted of a crime, only once out of 120 times that he actually commits a crime will such an arrest and conviction be actually recorded—a startling disclosure, as you will see when you examine these submissions.

Mr. John Ingersoll recently estimated that the total drain on the national economy by reason of heroin addiction is as high as possibly $3.5 billion, including, of course, the cost of crimes committed and the law enforcement costs. The Urban Center of Columbia University said in a recent study that the cost of narcotics-related crime in Harlem alone runs as high as $1.8 billion. Now, we do not suggest that these conclusions or these figures are contradictory; we do suggest that they again emphasize the importance of reexamining our priorities, particularly since the traditional cost of crime estimates, let us call them——

Chairman PEPPER. Mr. Rangel of Harlem has just come in. Would you repeat that statement you just made, Mr. Jones?

Mr. JONES. I am sure it comes as no surprise, but the reference, Mr. Rangel, was to a recent statement by Mr. John Ingersoll to the effect that the total drain on the national economy caused by drug addiction is estimated at some $3.5 billion, including the cost of crime and the law enforcement costs. In a similar study, I just stated, the Urban Center of Columbia University reported that the cost of narcotics-related crime in the Harlem area alone runs as high as $1.8 billion.

Now, this is exclusive of the costs of law enforcement and crime prevention.

Mr. MURPHY. Commisisoner, may I ask one question at this point? What percentage of the total crime in New York do you think is drug related?

Mr. JONES. Dr. Chambers?

Dr. CHAMBERS. It would be impossible to estimate. We feel comfortable with the estimates that have been made, 50 to 60 percent of all crimes attributed to the addict. I would feel more comfortable talking about what we do know as opposed to what we do not know. What we do know is that each of the addicts who is on the street, excluding the hidden user—the individual who still maintains employment, et cetera—the street addict is committing 120 crimes for every one that he is being arrested for. For every one that he is arrested for, only half of those result in a conviction. We feel more comfortable with that. You can take and multiply by the number of street addicts that are currently being projected, but it is impossible to estimate the dollar cost of this, because the individual may be stealing things that today sell for more than they will sell for tomorrow.

I think more important than the dollar cost, or at least as important, is that there appears to be an evolution in the type and amount of crime being committed. The same study involving the hidden, unreported crime, also indicated that 65 percent of this group had crimes against the person in their history. We have traditionally grown up, I think, with the idea that the heroin addict is a passive, dependent individual who commits property crime. He does indeed commit property crime, but he also commits crimes against the person. What apparently is happening, and I use "apparently" advisedly, he leaves his house in the morning and he commits that crime which presents itself. If it happens to be a mugging, that is what gets committed. If it happens to be a purse snatching, that is what gets committed. We can no longer predict and, therefore, assign enforcement on the basis of what we knew about the old heroin street addict.

Mr. MURPHY. Thank you very much.

Chairman PEPPER. Excuse me just a minute. Dr. Robert Dupont, director of the narcotics treatment administration in the District, also estimated about 50 percent of the homicides were committed by drug addicts. Have you any comment on that?

Dr. CHAMBERS. Yes, sir; I heard you mention that earlier. I was not aware of that figure. We do not have a comparable figure, but it will not be long until we do, now that you have mentioned that.

Chairman PEPPER. Thank you.

Mr. JONES. With regard to the cost of crime estimates, the added point that I would like to make is that most of these estimates, gentlemen, fail to include the incalculable losses suffered by the victims of these crimes—whatever the percentage might be, Congressman Murphy, of those crimes that are committed by addicts. In New York, we recognize and try to reflect a growing concern for the innocent victims of crimes, whether they be committed by addicts or nonaddicts. They help swell the figures, you see, that I think reasonably should be considered in assessing estimated costs of crime.

In New York, for example, in the current fiscal year, we have appropriated $2.2 million to aid the victims of violent crimes under a program that was recently launched.

Just a few more observations with regard to the text, Mr. Chairman. As you will see, further studies indicate, and this one is somewhat startling, that among the numbers of students in a ninth grade class—and if I am not mistaken, Dr. Chambers, this was not a class in New York City, this was a surburban area—but among the members of a ninth grade class, 27 percent of them used drugs or drugs and alcohol. Some 24 percent of them used alcohol alone, and the rest either had no drug abuse or different kinds of drugs. Altogether, there were 12 different kinds of drugs that were admittedly used by members of this ninth grade class that was surveyed, indicating that the problem is not only spreading outward, but it is seeping further downward among the age groups like a deep, heavy fog settling over the lives of blighted youngsters in the metropolitan area where this survey was made.

Mr. PERITO. Commissioner, was that study made in Westchester County?

Dr. CHAMBERS. These figures do not relate to Westchester County. We actually did 65,000 instruments in the State, in counties throughout the State. This happens to be an upstate suburban area.

Mr. Perito. Would it be fair to describe this area as an upper-middle-class community?

Dr. Chambers. Yes; it is.

Mr. Perito. Please continue.

Mr. Jones. I have already alluded to the significance of the new phenomenon of multiple use and multiple-drug abuse, multiple addiction. In 1944 there was 8 percent of the population at Lexington that had concurrent use of opiates and barbiturates, with 1 percent addicted to opiates. By 1966, that figure had swelled, believe it or not, to 54 percent, from 8 to 54 percent in 22 years, that showed concurrent use of opiates and other types of drugs, with 35 percent addicted.

I think it is important, gentlemen, that in all your deliberations, you focus upon not only what drugs do to an individual, but what they do for an individual. I made some reference to this earlier when I said that increasingly larger numbers of drug users find themselves involved as a matter of recreation, as a matter of, almost, survival in a very hectic, teeming sort of way of life.

There are other statistics, as I said. I fall victim myself to the thing I keep saying I will not, but as you can see, whenever you get involved in studies of this kind, you do tend to get overwhelmed by the facts and figures that are revealed. I will try not to burden you any further with these statistics.

The next category I would like to discuss generally, gentlemen, is a comparison of the Federal and State efforts. There was much discussion when we were putting this together because of the fear, don't you see, that whatever we say in this context might be construed—and we hope not—as critical of the Federal Government or the present administration. It is not intended to be, per se. It is done only and entirely in the hope that further cooperative effort will be generated and further meaningful channels explored of cooperation between Federal and State Governments.

Chairman Pepper. Mr. Jones, let me make it clear for the record that the purpose of this committee is not to be critical but to be commendatory of the effort being made, and to try to find out from knowledgeable sources the magnitude of the problem and the magnitude of the effort that will have to be made to cope with the problem.

Mr. Jones. Thank you, sir; as commendable as the Federal efforts have been, gentlemen, they are simply not enough. Comparisons are odious, I know, but when you consider, sirs, that in 4 years, the State of New York has spent almost a half billion dollars in its entire drug effort, the figure is actually $475.3 million, almost half a billion dollars in 4 years operation, I think you can understand the point I am trying to make.

Mr. Perito. Commissioner, excuse me, are you referring to all related drug-abuse activities?

Mr. Jones. That is right. This is not just operational budget figures for the commission itself; these are also for funding of agencies, private agencies that are treating drug addicts.

Mr. Perito. Is that excluding the cost of law enforcement?

Mr. Jones. Yes.

Mr. Hesse. Yes; it is.

Mr. Jones. That is excluding law enforcement; right.

Mr. Brasco. But that includes all the administrative costs?

Mr. Jones. True, part of our operational budget is included. But keep in mind, Mr. Brasco, that of the total, the total operating budget year by year, out of that, we fund programs that are designed for treatment, including our own. So it is not just salaries and——

Mr. Brasco. No, no; I was not—you see, we get to that area all the time. To echo the words of the chairman, I am trying to find a posture, not to be critical. I was just curious, when we give the figure—you know, sometimes, when presented, it sounds like a very large amount. But when you have to take into consideration that of necessity, you need administration in all of these programs and the administration, obviously, is part of the treatment, but it does eat into that $475 million that has been spent over the 4 years.

Mr. Jones. That is right.

Mr. Brasco. I am just wondering whether there was a breakdown on what it costs to administer the programs, included in the $475 million.

Mr. Jones. Oh, yes; we have figures that we will be glad to submit to you. Even with the extensive cuts that were made, budgetary cuts that were made by our own legislature this year, gentlemen, the operating budget alone for the current fiscal year is $91.7 million as compared with a figure of $20.7 million 4 years ago, when we started. As I said, I will be happy to submit a breakdown to show you just where those moneys go that we label generally operational budget, with the assurance that a large part of it does go for treatment.

(The budget breakdown referred to follows:)

The Commission's present fiscal plan calls for the following allocation of its $91.7 million State purposes appropriation for fiscal year 1971–72:

	Dollars in millions
Administration	$3.7
Centralized support services	2.6
Residential treatment and rehabilitation	24.6
Community based and aftercare treatment and rehabilitation	23.6
Treatment and rehabilitation contractual services [1]	9.2
Methadone [2]	20.6
Research and testing	1.7
Prevention and communications	2.5
Total [3]	88.5

[1] Excludes detoxification services expected to be financed through medicaid and includes Hart Island.

[2] To be supplemented by approximately 10 percent in medicaid funds.

[3] Limit of current expenditure plan.

Mr. Rangel. Commissioner, there is no question that New York State has really provided the leadership in the attempt to rehabilitate the addict, and certainly those here in Washington are looking for some of the answers, whether it be medically or in the area of rehabilitation. Now, could you, representing the State's program, give us any idea—notwithstanding the amount of money that has been spent—as to what percentage of drug addicts went through your program and are presently drug free?

Mr. Jones. Well, I am sure Dr. Chambers has the figures more readily at hand than I do, but I do have one figure here that in 4 years, 38,933 addicts have been through our program of which total there are something like 10,000, if I am not mistaken, currently in treatment.

Now, Dr. Chambers, can you respond to the further part of the question relating to what percentage of that total remain drug free?

Dr. Chambers. I think we can say this for you: We have a 3- to 5-year commitment process. Those who are processed through the entire civil commitment, the 3 or the 5 years, are a relatively small number of people thus far. Of those who have gone all the way through the program, roughly 25 percent are currently abstinent, according to a physical followup. I have a followup division which goes to the field at periodic times after decertification to physically locate, interview, and request a urine specimen from our decertified clients.

That is not to suggest that 75 percent are now nonabstinent individuals. Roughly 25 percent have either recertified themselves to us or have entered other treatment programs. They are not currently addicts in the classical street sense. We have, therefore, a residual of approximately 50 percent who are in jail as a result of a new offense, drug related, or have returned to drugs.

I must emphasize, though, that we are still talking about a relatively small population because of the length of history of the commission itself.

Mr. Rangel. Well, notwithstanding the small number that you are dealing with, is it safe to say that New York State does not have the answer to rehabilitating drug addicts?

Mr. Jones. Oh, that is a safe statement; absolutely.

Mr. Rangel. The doctor was thinking about it.

Dr. Chambers. Well, I do not think anyone has the answer, because I do not think there is an answer to drug addiction. For example, if I may give you a personal bias, the longer I am around people who use drugs, therefore around people who subsequently abuse drugs, the more I become convinced that drugs do large numbers of things for people—not one thing. You do not handle only depression with drugs; you do not handle only anxiety with drugs; you do not handle only the loss of a job with drugs or the inability to get a job with drugs. So as long as there are multiple reasons that drugs do something for the individual, or even that he thinks drugs are doing something for him, then I do not have an answer to the treatment of those people.

Mr. Rangel. Well, what would you suggest, Doctor, if you had the responsibility of creating a Federal program and the Congress gave you the money to do what you thought had to be done? What areas would you go into?

Dr. Chambers. Well, I think I share the same treatment philosophy that most drug professionals have today, that since we do not know the answer, since what we do know is that each of the modalities that has been tried has been successful and each one has also been a failure, and until which time we use a multimodality approach, using all of the modalities, evaluating all of them with the same yardstick, that is what I will have to recommend. I must have substitution programs, both the antagonist programs and the maintenance programs. I must have detoxification facilities; I must have halfway houses; I must have purely abstinent residential centers.

I guess I want everything we have tried and anything else I can think of to try, put all of them in an experimental frame where I can do controlled evaluation and actually see which is working best with which type of client.

Mr. RANGEL. What, if anything, has New York State done in the area of research since we have not really found an effective rehabilitation modality as yet? Is there any research being done with the millions of dollars that are being spent?

Dr. CHAMBERS. Of course there is research being done. There are several levels of research. I would suggest that the commission has engaged in most, if not all, of the levels of research. For example, I have great faith that Dr. Mule's laboratory science work is a marked contribution to the field. In the other research areas, we have been fortunate within the commission to be able to randomly assign people to the various kinds of facilities, the various kinds of programs that we operate internally. These are being carefully monitored. In addition, I also have the data from the systems for all of the programs which we fund, rather than only for our civil committed clients. Those are all being evaluated now, with the same yardstick that I applied to the commission.

Mr. RANGEL. Have you had any experience at all with a substitute drug which is not addictive?

Dr. CHAMBERS. It is my impression, and it is only that, that we have not had a pure antagonist yet, which is what you are asking for. Even naloxone and cyclazocine have some agonistic characteristics which suggests they do have some abuse potential.

Mr. RANGEL. Does the drug Perse means anything to you?

Dr. CHAMBERS. Yes.

Mr. RANGEL. Have you had any opportunity to study its effects on drug addicts?

Dr. CHAMBERS. No; I have not.

Mr. RANGEL. Is there anyone with the New York State commission that is preparing to investigate the feasibility of using this drug?

Dr. CHAMBERS. That question has to be directed to the commissioner.

Mr. JONES. Yes; there is. That is why I interrupted. Dr. Chambers may not have even known yet about recent developments, as recent as last week.

A committee, Mr. Rangel, finally has been appointed to examine this drug, the one to which you referred, Perse. It is one that, an effort that started a year ago and finally culminated in the formation of this committee—I might say a committee of very highly critical medical experts, but I think the more critical they are, the better, frankly, from the point of view of results that may obtain. Some of the names of the members of that committee. I am sure, will be familiar to you. They have agreed upon a protocol to be followed. I have been assured that the requirements and the requests that the committee will make shortly on Dr. Revici will be met; namely, submission of his own protocol, a submission of quantities of the drug that he has developed for analysis, and other inputs which they will shortly ask him to provide. He has assured me that he will provide them and this committee will then start working on the first indepth analysis of the whole theory and testing of the product that he has put forward.

I might say that Dr. Mule, who is head of our laboratory, is the head of that committee.

Mr. RANGEL. Our distinguished chairman has provided congressional leadership in assisting Dr. Revici to have a fair review of some of the assumptions he has made to us through other doctors, so I would hope the commission might be able to work very closely with this committee to make certain that whatever areas we explore, we can do it without duplicating. I am very excited to hear that my State, too, is involved.

Mr. JONES. Right.

Mr. BRASCO. Would the gentleman yield for a moment?

Mr. RANGEL. Yes.

Mr. BRASCO. I wanted to echo the words of Mr. Rangel. Certainly, I, too, am very happy that the commission has decided to take a look at this drug. Not being a medical expert and listening to all of the experts who come before us and tell us, as we already know, how complex the problem is, I find it often very distressing that when we have any kind of a lead in terms of some drug that might provide a medical answer, such as Perse—and from what I understand, in New York alone, there are some 1,200 people—is that correct, Charley—in the program? Some people are being treated.

Mr. RANGEL. Some 2,000 have gone through his program. But the question of followup would be for agencies such as yours to substantiate.

Mr. BRASCO. The point I make is I find it very distressing that we are just getting around now to take a look at it. We had people from the FDA who indicated that we had to go through some tests on monkeys and other animals, I just find it absolutely no answer to say that we cannot provide Dr. Revici or any one else with the monkeys and the other animals to be tested in a hurry when we are all in agreement that we are groping up some kind of a blind alley in finding a solution to this problem. I am happy that we in New York State are finally getting around to appointing a committee or a subcommission under your leadership to take a very good look at this. I think we should take a look at every lead that comes along today.

Thank you.

Mr. MURPHY. Would the gentleman yield?

Mr. BRASCO. Yes.

Mr. MURPHY. What Mr. Rangel and Mr. Brasco are talking about here is pure research. I am wondering about the President's program—and I do not mean to be unnecessarily critical—but $11 million for research purposes to me is a drop in the bucket when we can spend $400 and $500 million in missiles and I do not know how many billions in the Defense Department. With the type of statistics that you have quoted here today, Commissioner, about crime and you, Doctor, about the ramifications of crime in New York, I am wondering if we are appropriating enough money for pure research with $11 million?

Dr. CHAMBERS. As a researcher, you have asked the wrong individual. You will have to ask the commissioner. Of course, it is an inappropriate amount of money. The State of New York, for example, recently spent in excess of a quarter of a million dollars to do a survey of the incidence of drug use in the general population, the results of which are being shared with the Nation today. We are talking about, simply to go to the streets and look at a relationship, a behavioral science relationship between crime, the addict, and its victim as a quarter-of-a-million-dollar project. So if you are going to include all basic research, the biochemical, the pharmocological, where laboratory equipment is very expensive and time is of the essence——

Mr. MURPHY. Doctor, do you share the opinion of Dr. Resnick, who testified before this committee, that a concentrated research effort with enough money to do a good job and a collection of the finest minds we have in this country devoted to this research would produce in a year's time some type of prophylactic or immunization program that would prevent drug addiction in the future among the youngsters?

Dr. CHAMBERS. Not with the certainty that he does. I wish I could. Gentlemen, I am sure Dr. Martin from the Addiction Research Center in Lexington must have been before you. I have no idea who the other clinical pharmacologists or toxicologists are who have been before you. These gentlemen have been doing precisely this kind of work for 7, 8, 9 years that I personally know of.

Money is not always the only answer. It certainly provides us with the means for addressing issues and isolating questions, but money will not guarantee you an answer in 6 months. It certainly would allow you to look at more appropriate questions in a short period of time, but I personally can't guarantee you a pure antagonist that would have the effect of measles vaccination, mumps vaccination, et cetera. I just do not share that faith.

Mr. MURPHY. But if we do not look, Doctor, obviously we will never know.

Dr. CHAMBERS. You are right. But that was not the question, as I understood it.

Mr. MURPHY. No; it was not. But it seems to me that where we should be concentrating our efforts, and I ask you as a medical man, I think is in the pure research area, because obviously, all the customs officials, all the special leverage that the president has with foreign governments, have not produced any satisfactory results as of today. The problem becomes worse and worse as the days go by.

Dr. CHAMBERS. Point of clarification : I am not a physician, I am a behavioral scientist. That may temper my judgment in some of the areas.

Mr. MURPHY. Thank you.

Chairman PEPPER. May I get back, Mr. Jones, to your figures a little bit ago. I want to get a clear statement as to how much the State of New York or the city of New York is spending toward trying to treat and rehabilitate narcotics addicts. You have given us the figure that the State of New York has spent about $475 million in the last 4 years. You are spending now at rate of about $91 million a year. Is that correct?

Mr. JONES. That is in our operational budget alone.

Chairman PEPPER. That does not include any money for law enforcement?

Mr. JONES. No.

Chairman PEPPER. Now, what else are you spending? I am trying to get some idea of how much the State of New York and the city of New York are spending on treatment and rehabilitation of heroin addicts.

Mr. JONES. Our operational budget, as I indicated—

Chairman PEPPER. Total expenditures, leaving out law enforcement, related to treatment and rehabilitation?

Mr. Jones. That is correct. Our operational budget is $91.7 million a year, this current fiscal year.

There is an additional $51.9 million for youthful drug abuse programs alone. The reason for this separate appropriation is that when our commission was first established, the mandate from the legislature was to treat adult drug addicts. It soon became obvious that the mandate was not broad enough, that we needed additional authorization.

Chairman Pepper. So you are spending $141 million a year.

Mr. Jones. No; there is more.

There is an additional $20 million that was appropriated just in the past 2 weeks to be added to the figure of $51.9 million for youthful drug abuse programs alone. I mention these separately because the $51.9 million is a carryover from last year. In addition to that carryover, there is a new $20 million that has been added this year for youthful drug abuse programs alone. So that the total figure for youthful drug abuse programs as of this minute, the total appropriation is $71.9 million.

Chairman Pepper. To be added to the $91.7 million?

Mr. Jones. That is added to the $91.7 million operational budget. And there is more.

There is an additional $23 million appropriation for methadone. These are listed separately, gentlemen, because they were appropriated separately, but they do give an entire picture. If you add those up, gentlemen, I think the figure is $186.6 million.

Chairman Pepper. New York is now spending for those various purposes related to drug addiction or education against it about $186 million per year?

Mr. Jones. That is right.

Chairman Pepper. How much is the city of New York spending in addition, if any?

Mr. Jones. The only independent moneys that are expended by the city of New York, to my knowledge, are the moneys that come through special grants from the Federal Government.

Chairman Pepper. They are not spending any additional money?

Mr. Jones. No; they administer funds that we appropriate or designate for the city.

Chairman Pepper. Very good.

Now, how much money do you get from the Federal Government; that is, in the same area as the $186 million a year that New York State is now spending?

Mr. Jones. All right, I will refer the answer, if you do not mind, sir, to Mr. Hesse, who is our Federal-State relations man.

Mr. Hesse. At the current time, Mr. Chairman, we have two research contracts from the National Institute of Mental Health which total $107,000.

Chairman Pepper. $107,000 total?

Mr. Hesse. Right. We have an authorization of up to $60,000 in support of an on-the-job training program for rehabilitating addicts. That basically is the amount of money that the Federal Government is contributing directly to the New York State program.

Chairman Pepper. You are not getting any money from the Federal Government for your treatment and rehabilitation program?

Mr. Hesse. No, sir; we are not.

Mr. JONES. Not a penny.

Chairman PEPPER. In the last 4 years, you said you spent about $475 million. During that 4-year period, how much money did New York State get from the Federal Government for narcotics treatment, rehabilitation, or research?

Mr. HESSE. My records show the total over a 4-year period, including the current budget year, to be the $167,000 I have just mentioned. Other contracts nearing execution, which are also research oriented would bring the total to $200,000.

Chairman PEPPER. Not over $200,000?

Mr. HESSE. Not over $200,000 in direct grants approved by the Federal Government. We have received an additional $143,000 in Federal funds, again for research. But this was not approved under any Federal grant programs. The Law Enforcement Assistance Administration allows the New York State Office of Crime Control Planning to take 25 percent of its bloc grant and to dispense it for "State purposes." This agency provided the money to conduct the survey of drug abuse in New York State. It was actually from a State agency using its bloc grant funds.

Chairman PEPPER. Now, you estimate, I believe, Mr. Jones, that the State of New York has about 110,000 heroin addicts?

Mr. JONES. That is right.

Chairman PEPPER. So you gentlemen are telling this committee that New York has almost entirely, itself, borne the total cost of the treatment and rehabilitation programs for heroin addicts.

Mr. JONES. That is correct, sir.

Mr. HESSE. But, Congressman, just a comment I would like to make because our two Congressmen from New York have asked some questions here.

The money that New York State has spent can be evaluated in many, many ways. But in terms of what you are trying to accomplish here, which is to put the Federal Government into this ballgame, you should bear in mind that our increase this year in operating budget alone amounts to more money than this Congress gave to the National Institute of Mental Health to support Public Law 91–513.

Chairman PEPPER. By the way, if you have the figure, just state for the record what the Federal Government has been spending in the whole country in the area for which you gave figures just now?

Mr. HESSE. This may be an implied criticism, but in Public Law 91–513——

Mr. PERITO. This is the Comprehensive Drug Abuse Prevention and Control Act; that is, Public Law 91–513.

Mr. HESSE. The Comprehensive Drug Abuse Prevention and Control Act of 1970 had an authorization of $189 million over 3 years—with $23 million to be provided in the current Federal fiscal year. The Department of Health, Education, and Welfare appropriated $6.5 million.

Mr. BRASCO. I just wanted to interject at this time because we get involved in implied criticisms. I think what we really have to do in this situation is to take the gloves off to a great extent in terms of being able to criticize each other constructively. I think unless we do that, we are never going to get any place. I think it is very simple, The figures are that New York is going to spend, as I understand from the commissioner, $186 million in all of the programs for the next fiscal year. Is that correct?

Mr. JONES. That is correct.

Mr. BRASCO. And it seems to me that notwithstanding this expenditure, we are all in agreement that we need more and that we do not have any answers yet; notwithstanding the fact that New York is considered to be one of the leading States in this area.

Then when you get the program before us, the President's program, which is supposed to be a war, which allocates for 50 States to use $105 million in various categories, and then you have to divide that 105 by 50, plus all of the jurisdictions in those various 50 States, this is a war that is being fought by throwing marshmallows. I think that very simply, if we are going to go along those lines and say that this is a major breakthrough, then I think we do a disservice to ourselves and to the millions of Americans who are looking at the Congress and this particular committee to come up with some answers.

So when you are ready to criticize, please do it, because I think that is what we need here. This is not a partisan thing. There has to be constructive criticism across the board; otherwise, we are not going to get any place.

Chairman PEPPER. Following that line of inquiry, Mr. Jones, if I understand your conclusion, the State of New York in its next year's budget, the 1972 budget, is spending $186 million on a treatment and rehabilitation program for narcotics addicts, and you are telling us that the Federal Government, without considering the President's present recommendations, is spending $88 million for the whole United States of America, where it is estimated that there are between 200,000 and 300,000 heroin addicts?

Mr. JONES. Right.

Chairman PEPPER. The Federal Government is presently spending $88 million and if the President's additional $105 million is added to that, that will make a total of $193 million. And you are spending $186 million in New York alone.

Mr. JONES. That is correct.

Chairman PEPPER. My next question: Is the amount that New York is spending, the $186 million, adequate to deal with a heroin addiction crisis of such magnitude?

Mr. JONES. Absolutely not. As a matter of fact, it represents a substantial cutback from the amount we actually asked for for the current fiscal year.

Chairman PEPPER. Have you and your associates made any estimate as to how much it would cost to effectively offer treatment and rehabilitation to all the heroin addicts of New York State?

Mr. HESSE. I can say this much on that question, Congressman Pepper. We anticipated at a point last November that we would require $117 million in our operating budget from State purposes funds; that we would need approximately $71 million in local assistance funds. We estimated our needs from the National Government for just basic programs to give us an additional impact in certain areas, particularly in New York City, for certain types of programs for which we could not get the additional funds from the legislature, at approximately $27 million. Unfortunately, the money was not put into Public Law 91-513 and we could not get them to entertain the applications that we had prepared for them.

On that particular point, when you talk about a disservice to the people of this country—and forgive me, Congressman, if I am somewhat cynical; I am a political scientist—the people of this country responded to what this Congress did last year in approving Public Law 91–513 and Public Law 91–527. You promised them an opportunity for drug education programs and the Office of Education received applications totaling $70 million. And they only had $6 million to spend. You should read the letters that the Office of Education had to send out.

Mr. Brasco. That is what we should be hearing.

Mr. Hesse. Right.

At the same time, NIMH had $6.5 million to implement the comprehensive drug abuse treatment program under the special program grants section. They received 79 applications totaling $26 million and they had $6.5 million.

Now, the initial estimate of $23 million in the first year that was made by this Congress when they drafted the bill was fairly precise, because you got just about that much, $3.5 million more, from programs around the country. But regardless of what kind of program dollar estimates you make here, Congressmen, or regardless of what people may think about New York and what we have accomplished with our $475 million, if you put forth programs and you put forth bills, there must be a general consensus here in this Congress, and with the administration, that you will actually fund the programs that you make available to the country. You cannot repeat what you did in 1970–71.

Mr. Brasco. I agree with you and that is why I am rather concerned about this present declaration of war on drug addiction. It would seem to me that, if we come up with the figure of $3.5 billion, it is costing in one way or another because of the scourge of drug addiction; then for openers, we ought to at least get to that point where we are talking on a war level—give the program $3.5 billion. Unless we do that, I just do not think that you can draw up any guidelines that make any sense; I agree with you. I think in the rhetoric of speeches, the American people have been told so much and expect so much and receive so little; that is why we are involved in the kind of situation that we have today, where there is just great disbelief in government, period. And I think that is what we want to hear, that kind of criticism which—well, it is not criticism, it is the truth. And I think it is constructive. If we are continually saying "I do not mean to criticize," then we are not going to get anywhere.

Mr. Jones. There is only one thing wrong with it, of course, and that is that assuming the money were provided, the tendency would be a year from now to say, "Well, let us see what you have done with it; how many of the people that you have treated now remain drug free?" Questions like that are awfully hard to answer, you see.

Chairman Pepper. Mr. Jones, let me ask you one question. Have you any recommendation out of your wide experience in this area as to the type of treatment and rehabilitation agency or facility there should be? I mean by that do you contemplate that the treatment should be given, for example, by private physicians or do you contemplate that there should be something in the nature of a clinic? It need not be large. It might be private as well as public. But do you agree with others who have testified here that there needs to be not only the administration of a drug to counteract the heroin addiction, whatever the accepted drug may be, but in addition to that, there needs to be therapeutic care, occupational assistance, general aid and consideration given to the addict? What kind of facility do you find from your experience to be the most desirable one for the treatment and rehabilitation of heroin addicts?

Mr. JONES. As Dr. Chambers mentioned, Congressman Pepper, I would be wary of trying to isolate any one program as the most efficient or the most efficacious that we should pursue. I think the only rational approach has to be the one that we have followed; namely, a multimodality approach. Even with regard to methadone, which is reportedly the most successful to date, it speaks in terms of quickness of easing the problem that we are addressing, you see. But even the most ardent supporters of the methadone approach, I think, will admit that it is a modality that is suitable for no more than 25 or 30 percent of the total population, you see. So that it would be a mistake to say, well, we ought to go all out for methadone, because it simply can't be applied successfully to the bulk of people that we are addressing.

The same thing would hold true for the therapeutic treatment, the therapeutic community approach. Not all addicts, of course, will respond to that kind of modality or treatment. It is awfully difficult to try to isolate one method and sell it to this Congress or to the administration as the one that should be followed.

Mr. RANGEL. It is true, Commissioner, that most people who are unaware of what is going on in the drug addiction area do ask for results. But it seems to me that there should be a Federal program which would dissiminate the results that are coming in from all of the States rather than having any one municipality or any one State ask what they are doing with their particular addicts. But we are now listening to this administration declaring war on addiction and everyone is being apologetic. But on page 18 of your prepared statement, you indicate that the National Institute of Mental Health, in setting up its recent 25-target city programs, did not include a single city in New York State. Well, I would like to direct my question to the liaison here and ask how can you avoid being critical?

Mr. HESSE. With a great deal of difficulty, Congressman.

I am sorry; that is a facetious answer and I should not give it.

No, we were rather upset at the guidelines which were incorporated into Public Law 91–211 by the Congress when it passed that bill and the guidelines that were adopted by the National Institute of Mental Health, because it did not give us what we thought was a meaningful opportunity to participate and we very much hope that in the future, such opportunities will be forthcoming.

We would like to see the National Institute of Mental Health, if I may take just a second here, implement the provision of Public Law 91–513 which requires the Secretary of HEW to establish priorities for the States having the more significant problems of drug abuse. To the best of our knowledge, that has not been done. Possibly if the money had been forthcoming, it would have been done. But certainly, if you are going to spend these large sums of money that are being talked about in the various bills, we would hope that a system of priorities would be worked out, not just because New York State has the largest problem and we need a lot of money, but to address the national effort in a coordinated response with our own toward those areas having the highest incidence of drug abuse.

Mr. Rangel. May I suggest this, that certainly, this is not a social gathering. The Chair has made it abundantly clear that the committee is looking for direction and certainly not attempting to embarrass anyone. It seems to me that with the great amount of money New York State has spent—honestly admitting that they are still searching for the answer—your commission might be able to give some very strong suggestions and recommendations to this committee as to how the Congress can be more responsive to the problem of rehabilitating drug addicts. If this includes being critical of programs that are suggested, this committee will accept it from the experts making the recommendations. So I hope that we can look forward to some very strong suggestions, not only as it relates to the needs of the people in the State of New York, but certainly as to the Nation as a whole.

Mr. Brasco. And with respect to that problem, I wish you would communicate with Mr. Rangel's and my office, in connection with New York being left out as one of the 25 target areas. We should know about things like that.

Mr. Jones. Well, the guidelines, Mr. Brasco, as presently written, seem to impose a penalty on those States in areas where programs and facilities and services are provided. So that the more New York does, you see, the more we are likely to be excluded. This is actually what has happened.

Mr. Brasco. I appreciate that, except we would like to know about it in writing and we will see what we can do about it.

Chairman Pepper. Mr. Winn?

Mr. Winn. Mr. Jones, just one quick question. Do you have any idea how much foundation money and how much medical school money has been made available for fighting the drug problems in the State of New York?

Mr. Jones. I know we have contracts with the New York Medical College. Dr. Chambers can give you more precise details.

Mr. Winn. Could you give the committee just a round figure? We have been batting figures around.

Dr. Chambers. Those are funds that we provide to the medical schools. The medical schools do not provide funds.

Mr. Winn. I am talking about foundation money that they may have that they are spending on their own, medical schools and foundation money.

Dr. Chambers. I do not have that figure.

Mr. Winn. Could you supply the committee with that figure? I have heard of several programs where foundations are supplying funds to the medical schools for fighting drug abuse in the State of New York.

Thank you, Mr. Chairman.

Chairman Pepper. Mr. Keating?

Mr. Keating. I have heard a lot of talk this morning about the expenditure of funds and I was happy to hear from the doctor with regard to behavioral sciences that he also is concerned with the quality and the way in which the funds are expended and how we approach the problem. I personally feel that President Nixon has increased that fund considerably, doing a better job, really, than the Congress has at this point in providing leadership so far as the drug problem is concerned. I hope and I certainly will support a larger expenditure of money until we get the job done, every penny that is necessary to do the job. But I do think we have to go about it wisely and have a planned program to operate under.

Now, let me ask a couple of questions, If I may. You are using the methadone program in New York?

Mr. JONES. That is correct, sir.

Mr. KEATING. And I am sure you are aware of Dr. Jaffe's efforts in this direction to make a longer lasting blockage drug so as to avoid treatment every day. Do you have any of that methadone in your hands for treatment that is longer lasting or is that only with Dr. Jaffe?

Mr. JONES. As far as I know, we do not have the new derivative that Dr. Jaffe is reportedly using—not that we do not have it, but we are not using it as an integral part of our program effort. There is research being done with respect to this new drug which, incidentally, is, as I understand it, also addictive. It is longer lasting, allegedly, in the sense that it does not have to be administered as frequently as the methadone-type that we are using.

Mr. PERITO. Mr. Keating, just to clarify the record, you are referring to acetyl-methadone, the drug Dr. Jaffe has been using.

Mr. KEATING. Right.

Now, do you think this has some pluses from your standpoint, this longer lasting drug? Can it help you so that the addicted person does not have to come in every day?

Mr. JONES. It certainly sounds exciting. It is because of the possibilities here that we are making some of the recommendations that are contained in our submitted text, as a matter of fact.

Mr. KEATING. Now, recently, there were two deaths from overdoses of methadone in New York. We traced it through our office that the deaths were due to methadone, although we were advised in Washington and other places that it was not methadone. I am sure you are familiar with the 16-year-old girl and 22-year-old fellow who died together outside the hospital in New York. We only have our information. I could still be wrong. I wonder if you investigated that and if you know if that was a methadone overdose in fact.

Mr. JONES. I understand it was and as Dr. Chambers will tell you, this is part of the reason for our caution in wholesale use or adaptation of any of the known chemicals. The fact is, for example, that methadone is much more dangerous on an experimental basis than is heroin; believe it or not.

Mr. KEATING. I am not surprised and I am concerned. I can see, with regard to the crime rate, methadone does have some positive, plus effects. But it is not the answer, and I am not satisfied that it is the answer, because total rehabilitation must be our goal. I am very happy to hear you say that there are some reservations about its use and we have to look for something better.

Have you ever used naloxone or have you ever had an opportunity to use naloxone?

Mr. JONES. We are doing considerable research with cyclazocine as well as naloxone. Again, Dr. Chambers will enlarge if you wish, but my understanding is that with regard to cyclazocine, although it's effective for the purposes along which research is aimed, it has been found to be awfully short term. In an effort to overcome that defect, effort was concentrated on the other drug, naloxone. The one difficulty was overcome only to find that other disturbing side effects appeared. Perhaps it was the other way around. There is always this complex of problems and related considerations before we can move wholesale on any one substance.

Mr. KEATING. The first time I heard the suggestion that naloxone had some addictive characteristics was this morning. I wonder, Doctor, if you could enlarge on that comment?

Dr. CHAMBERS. These are trials that of course have been done at the Addiction Research Center. With the exception of the new numbered antagonists that I am sure Dr. Martin shared with you——

Mr. PERITO. You are referring to M–5050?

Dr. CHAMBERS. Yes. They have not isolated a pure antagonist as yet. If you have a pure antagonist, there is some liability—abuse and dependency can be produced for it. If we are thinking of the same thing, you say addictive possibility, dependency could be produced with naloxone. It is not a high liability; for example, it is not like a narcotic.

Mr. KEATING. I have in my file some indication on the use of marihuana and Mr. Ingersoll made some comment on the use of marihuana. I am wondering how the commission views that use and its relationship to the heavier drugs—heroin and so on?

That is a little ambiguous. Let me put it this way. The indication was that the use of marihuana creates the environment into which you can move to heavier drugs such as heroin and so on. Do you look upon it in the same way?

Mr. JONES. I think this would be a good point to introduce Dr. Chambers so that he can present officially to this Congress the results of the first statewide survey of narcotic dependence and drug abuse, I think, that has ever been undertaken in this country. It is an outstanding accomplishment, Mr. Chairman and gentlemen. I think the answers are contained in this study. Perhaps Dr. Chambers would like to make a formal submission at this time.

Chairman PEPPER. Would you summarize it for us, Dr. Chambers?

Dr. CHAMBERS. I can do that, sir, or I can relate only to the marihuana section and leave both the summary and the full report with you. It is a very lengthy report.

Chairman PEPPER. Whatever Mr. Keating would like.

Mr. KEATING. I am very happy I stumbled on this. We are most anxious to hear it, Dr. Chambers.

Dr. CHAMBERS. Let me answer your question first before I present data for you.

I, as all drug professionals, have been interested, I think, in the "progression hypothesis" for some time now—does marihuana smoking or the use of cannabis in any preparation set a stage or lead to or cause the use of other drugs?

Mr. KEATING. That is not really my question, but I would like to have the answer to that one, too.

Dr. CHAMBERS. I think what you have is undoubtedly a correlation or relationship. If I may, it is the same one we have had in behavioral science in criminology for a long time. Most adult criminals were first juvenile delinquents. That is not to imply that most juvenile delinquents become adult criminals. Most heroin addicts have marihuana histories. That is not to imply that most marihuana smokers become heroin users or addicts.

May I share with you the marihuana figures?

We did a stratified representative sample of the population in New York, age 14 and above, which gave us a base population to study in excess of 13 million people. We did face-to-face interviews on this representative sample in their homes and looked at all forms of drug use, whether it be aspirin or heroin and everything in between—looked at attitudes, behaviors, what they thought about other users, people who sold drugs, how you prevent drug use, whether you get all your drugs with prescriptions, et cetera. What we found in the area of marihuana was that roughly 1,032,000 people in the State of New York smoked marihuana in the last 6 months. Of those, some 487,000 are regular users of marihuana, having smoked marihuana at least six times during the past 30 days.

Of those 487,000 regular smokers, some 175,000 are employed; they are not students, they are not hippies, they are full-time employed people. Some 90,000 of those people are using it on the job.

So we have in effect now established, I think, a data base for all of the forms of drug use which should allow us to look at some of the questions that Mr. Ingersoll addressed with you.

We are very proud, it must be apparent, in New York of the survey and the results it gave us. When you begin to relate that some 110,000 people in the State of New York are regular users of prescription pep pills, some third of them get none of them by legal scrip, and some 40 percent of the people who are regular users of pep pills are using them on the job, then we are talking about an even greater problem than we have alluded to earlier this morning.

Mr. KEATING. Do you have enough copies for all of us or is it permissible that we duplicate these? I would love to have them.

Dr. CHAMBERS. I would be most pleased if you would duplicate them.

Chairman PEPPER. We can Xerox them.

Dr. Chambers, will you kindly submit your summary for the record so we will have the full benefit of it?

Dr. CHAMBERS. Yes, sir.

(Dr. Chambers summary of the report follows. The report itself was retained in the committee files. It was published by the Narcotic Addiction Control Commission and is entitled "An Assessment of Drug Use in the General Population—Special Report No. 1: Drug Use in New York State," May 1971.)

[Exhibit No. 21(a)]

STATE OF NEW YORK,
NARCOTIC ADDICTION CONTROL COMMISSION,
New York, N.Y., June 22, 1971.

SELECT COMMITTEE ON CRIME,
House of Representatives, Congress of the United States,
Washington, D.C.

DEAR MR. CHAIRMAN: You will find enclosed a report prepared by NACC's research director, Dr. Carl Chambers, which pertains to a study of the amounts

and types of drugs that are being used by members of the general population of New York State. We believe this survey to be the first of its kind, and it was partially supported by a grant provided by the New York State Office of Crime Control Planning. The data was secured through interviews with 7,500 scientifically selected representative persons. The report is the first of a series and constitutes an assessment of use for the total State. Subsequent reports will subdivide the State into geographical regions.

It should be noted that the numbers represent a projection of the more "stable" drug users, those with a fixed address, and consequently constitute minimums. Any one who has become personally and socially dysfunctional as a result of drug use, for example heroin street addicts, "speed freaks," et criteria, generally were not available for interview. Thus, only those drug users with a place of residence or routine "at home" hours were located. In some cases these minimal figures should be multiplied by three or four in order to project maximum involvement, for example heroin.

In this connection, attention is invited especially to the "Epilogue" on page 156 of the report beginning: "This study was not designed to determine the incidence of drug abuse in New York State. Methodologists and epidemiologists responsible for the survey design were in agreement that such a determination would require a more sophisticated interview schedule and more experienced interviewers than budget and time limitations permitted * * *" making clear that this is fundamentally a survey of drug use and that the figures relating to drug abuse or the use of hard drugs undoubtedly understate the situation.

I can summarize the data secured through the study as indicating, among other things, that of the statewide population age 14 and above:

1. Some 361,000 people use barbiturates on a regular basis (at least six times per month) and some 10 percent of these obtain none of these drugs with a legal prescription;
2. Some 187,000 people regularly use the nonbarbiturate sedative-hypnotics; for example Doriden, Noludar, and some 15 percent of these obtain none of these drugs with a legal prescription;
3. Some 525,000 people regularly use the minor tranquilizers; for example, Librium, Miltown, and some 5 percent of these obtain none of these drugs with a legal prescription;
4. Some 71,000 people regularly use the major tranquilizers; for example, Thorazine, Mellaril, and some 5 percent of these obtain none of these drugs with a legal prescription;
5. Some 39,000 people regularly use the antidepressants; for example, Tofranil, Elavil, and some 18 percent of these obtain none of these drugs with a legal prescription;
6. Some 110,000 people regularly use pep pills; for example, Dexedrine, and some 33 percent of these obtain none of these drugs with a legal prescription;
7. Some 222,000 people regularly use diet pills, usually containing amphetamines, and some 19 percent of these obtain none of these drugs with a legal prescription;
8. Some 17,000 people regularly use controlled narcotics other than heroin; for example, Demerol, morphine; and some 12 percent of these obtain none of these drugs with a legal prescription;
9. Some 1,043,000 people have smoked marihuana during the past 6 months, and 487,000 of them do so on a regular basis (at least six times per month);
10. Some 203,000 people have used LSD during the past 6 months, and 45,000 of them do so on a regular basis;
11. Some 111,000 persons have used methedrine (speed) during the past 6 months, and 35,000 of them do so on a regular basis;
12. Some 64,000 persons have used heroin during the past 6 months, and 32,000 of them do so on a regular basis; and
13. Some 101,000 persons have used cocaine during the past 6 months, and 6,000 of them do so on a regular basis.

In addition to the data summarized above, the report contains an assessment of the population's attitudes about drug use and drug users. General consensus was elicited on the following items:

> Everyone should try drugs at least once to find out what they are like, 90.3 percent disagreed.
>
> Addicts will do anything to get more drugs, 87.7 percent agreed.
>
> Drug addicts should be treated as sick people and not as criminals, 86.7 percent agreed.

Education is the best way of preventing drug abuse, 77.1 percent agreed.

People can use drugs to find out more about themselves, 75.9 percent disagreed.

The study indicates the need for further research into specific drug issues, and NACC scientists are currently making plans to assess the social costs and personal difficulties attendant to these various types of drug use.

Sincerely,

HOWARD A. JONES,
Chairman-Designate.

The CHAIRMAN. Gentlemen, you see the intense interest there is on the part of the committee in this expert knowledge that you have, and we are sorry that we cannot hear more from you, but we will have the benefit of your fuller statements in the record. We want to thank you very much for coming and giving us your valuable testimony today, Dr. Chambers and Mr. Hesse, with Mr. Jones.

Thank you very much, gentlemen.

Mr. JONES. Thank you very much, Mr. Chairman.

(Mr. Jones' prepared statement, with addendum, follows:)

[Exhibit No. 21(b)]

PREPARED STATEMENT BY HOWARD A. JONES, CHAIRMAN-DESIGNATE, NEW YORK STATE NARCOTIC ADDICTION CONTROL COMMISSION

INTRODUCTORY REMARKS

It is a privilege, Mr. Chairman, to have this opportunity, in behalf of Governor Rockefeller, the State of New York, and the Narcotic Addiction Control Commission, to present our views on the urgent and growing problems of narcotic dependence and drug abuse.

Our commission congratulates you, Congressman Pepper, on the leadership, imagination, and dedication you have given to this complex cause, especially your efforts to control the various psychotropic substances—for these are the principal drugs of abuse in this Nation—and also for your efforts to bring about more effective controls over the production of narcotic substances.

Our commission is also proud that a New Yorker, Congressman Rangel, is serving on this all-important committee. As you know he represents perhaps the most impacted area of crime-related drug abuse in the country; and has, throughout his legislative career, both here and in Albany, proved to be a most eloquent spokesman in this and other matters relating to the interest of his district.

I will depart from traditional presentation practice by omitting lengthy references to the history of our commission and details of our programs. These matters have been amply documented by other commissioners in previous testimony before this and other congressional committees.

We are especially pleased that your committee is attempting to focus upon the broad issue of drug dependence, in all its manifestations and ramifications, and is not confining its interest solely to the crime-related aspects of drug abuse.

We are confronted by a nationwide drug abuse pandemic, and the issue must be weighed in the perspective of all its component parts.

GENERAL OBSERVATIONS

In our opinion, President Nixon has supplied an excellent frame of reference for our discussion today.

In his news conference of June 1, the President stated that the administration considers this Nation's drug problem a matter of "the highest priority."

Mr. Nixon promised that the administration will "give it the highest priority attention at all levels, not just in regard to veterans where it is a special problem, but nationally, where it is one that concerns us all."

Accordingly, there was an announcement last week of a new administration program.

At the time we prepared this presentation, we did not have the specific details of the new program.

It is absolutely essential that the Federal Government provide for the treatment of returning veterans because State programs currently do not have the capacity to absorb this new group of addicts.

We are encouraged by the intention to expand the force of Federal narcotics agents, as we are by other existing and reportedly contemplated efforts to control the trafficking in narcotics.

We were pleased to learn of the recent appointment of Dr. Jerome Jaffee as Director of the Special Office of Drug Abuse Prevention, and look forward to a close collaberative relationship.

Gentlemen, it is our fondest hope that the promise of policy will be transformed by the administration and this Congress into the performance of program.

We have no doubt that the concern of the present administration, as well as this Congress and the various Federal agencies, is genuine and sincere. The programs espoused by both the President and the Congress, like the work of the departments directly involved, have been meritorious.

However, the question before this committee, indeed before the Nation today, is whether those efforts have in fact been proportionate to the problems that confront us. The legislation approved by this Congress in its last session, together with the demands of the Members of Congress at this session and the statements of the President last week, amount to a declaration that to date the total Federal effort has not been sufficient, and must be expanded.

Thus, it would seem, we will profit most today by discussing what level of Federal commitment will be commensurate with the problem; what programs and resources should be applied to achieve that level; and what directions such programs should take.

Speaking for a State commission that has been demonstrably concerned with social progress, and very much concerned about government's response to the most critical social problem of this century, it seems a fair observation to say that as a whole our society has not made up its mind about drugs; apparently we have not reached a firm determination as to what precisely we want to do about drugs and drug abuse.

Gentlemen, this Nation needs leadership. The people need assistance. Our commission is thankful that we have served under a leader like Governor Rockefeller and that we have enjoyed the support of a progressive legislature whose combined efforts have produced the largest narcotic treatment program in the world.

But that is also a major part of our problem. This is a pandemic, requiring not only national attention but international action as well. It is the foremost medical, social, criminal, and educational problem in this Nation, and we must have the continued cooperation and support of the administration and the Congress, taking coordinated, concerted action through increasingly comprehensive, long-range, high-impact programs.

Our commission has some very positive ideas about the direction such programs should take, beginning with an assessment of the actual drug scene in this country, and especially in New York which has the most severe problem.

SCOPE OF THE PROBLEM

There are an estimated 200,000 narcotic addicts in the United States today. Perhaps more than 110,000 of these addicts are in New York State. Their principal drug of abuse is heroin, and, because of their numbers, their involvement with crime and general antisocial behavior, heroin addiction and heroin trafficking have so far drawn the major share of attention and program dollars at all levels of government.

However, you should know that there has been an evolution on the drug scene. Changes have occurred in drugs of preference, patterns of abuse, and the identity and character of drug abusers—changes which require corresponding shifts in our thinking and in our programs.

We approach the problem more accurately when we speak of drug abuse and drug dependence, narcotic and nonnarcotic. We demonstrate that we have learned some lessons from the expenditure of millions of dollars when we make program differentiations for four distinct classes of drug abusers: The experimenters, the recreational or social users, the involved abusers, and the dysfunctional abusers, the latter group including but not limited to narcotic addicts.

Certain essential facts must remain in the forefront of our thinking and planning. First, today's drug abuser is younger, more inclined to take risks, and, importantly, he is a multiple drug user.

We have determined that various physiological, phychological, and sociological factors are involved; but we must also recognize, as the addict himself recognizes, that there is also a recreational aspect to drug abuse. We must concede the existence of the user who seeks and derives pleasure from these drugs and then concentrate on the larger question why so many individuals in our society choose mind-altering substances for pleasure.

We must recognize that there are adaptive as well as escapist abusers, persons who use drugs to cope with life and to adjust to the problems of society.

There are estimates that one out of every four Americans regularly uses a psychotropic substance. There are other estimates that 30 to 50 percent of our students have experimented with drugs.

The National Institute of Mental Health predicts that 65 percent of the experimenters with marihuana will use the drug only once or twice, and the majority of the remainder not more than 10 times in their lifetime.

Recent research by our Commission suggests that of 100 students in a given high school, 50 will experiment with drugs. Of these 30 percent will continue to use drugs for social or recreational purposes. Of these, five will become involved users while 25 will discontinue drugs. Of the involved users, three will become dysfunctional multiple drug abusers or addicts.

I think, gentlemen, we can all agree we have an epidemic of drug abuse in this nation. I think we can also agree that, unfortunately, our knowledge of these drug abusers is sadly limited.

Authorities in many fields speak incessantly about the drug abuser's involvement in crime. Much of this data is actually speculation, much of it is actually inaccurate, partly because we use a variety of reporting systems, with differing bases.

In addition to the vast number of criminal acts that remain hidden, many of these that are detected are not reported to the police. Moreover, reported crime does not always become recorded crime. One study by our research unit showed that every addict in the study had engaged in criminal acts, but only 79 percent had arrest records. We found that drug use began at age 13, on average, and that for the majority the first illicit drug used was marihuana.

Direct, acquisitive property crime dominated their criminal activity in terms of total offenses, 93 percent as against only 7 percent for voilent crimes against the person. Burglary was the crime most often committed, accounting for 37 percent of the property offences and 35 percent of all offences. Furthermore, three-fourths of the sample had engaged in crimes of burglary, a participation rate almost double that of any other crime.

Our statistical computations suggest that, collectively, 26 of the addicts in the sample were responsible on a daily basis for 22 major crimes including two robberies, seven burglaries, four thefts involving motor vehicles, four instances of shoplifting, and four miscellaneous thefts.

A most significant finding in terms of your interest, gentlemen, is that our study suggests the possibility that no more than 4 percent of the property crimes and 5 percent of the crimes against the person are reflected in our national crime reporting statistics. Moreover, the study suggests that the addict on average may commit up to 120 crimes for each crime for which he is arrested and charged.

Other interesting statistics uncovered in our survey indicated that there were 52,479 narcotics arrests in New York City last year, including 38,790 arrests involving morphine and heroin. There were 11,762 narcotics arrests in Harlem alone.

I mentioned that today's drug abuser is more of a risk taker than the former heroin street addict who used to be regarded as a passive, dependent person.

Just 4 years ago, when our commission began operations, the average age of the heroin addict in New York was 29. Today, the median age is estimated at 21. Today, 35 percent of the approximately 12,000 rehabilitants under our direct jurisdiction are under age 20. Similarly, whereas only 15 percent of the addicts admitted to the Federal hospital at Lexington in 1936 were 20 or younger, today, 53 percent of them, as you known, are under age 19.

As you know, worthwhile studies involving the behavioral sciences are in woefully short supply. Our division of research, which we consider the finest in the Nation, has conducted what is probably the only indepth statewide survey of drug abuse ever attempted in the United States.

Some of the results of this study tell us rather significant things about drug abuse today.

For one thing, the primary drugs of abuse are psychotropic substances. The users include top corporate executives, middle mangament, clerks, salesmen, white- and blue-collar workers, housewives, as well as young people.

We have defined a major problem of drug abuse in industry, at all levels of work, including a significant percentage of employees who abuse drugs while actually on the job.

In one study of the students in a suburban ninth grade class, boys and girls approximately age 15, we found that 27 percent had used either drugs or drugs combined with alcohol, and another 24 percent reported using alcohol only.

Approximately 10 percent of the student body had experimented with glue sniffing. 7 percent with stimulants, 5 percent with methamphetamines, 5 percent with barbiturates, 8 percent with codeine, 4 percent with opium or its derivatives, 3 percent with tranquilizers, 15 percent with marihuana, 8 percent with hashish, 5 percent with mescaline, 5 percent with LSD, and 4 percent with cocaine.

If you note that these percentages exceed 27 percent you will find corroboration for our earlier statement concerning multiple drug abuse.

An examination of the case records of your hospital at Lexington, Ky., provides further corroboration. In 1944 only 8 percent of the admitted heroin addicts concurrently abused barbiturates, while only 1 percent were concurrently addicted to barbiturates. In 1948, the comparable percentages were 17 and 5 percent; in 1957 they were 39 and 18 percent. A followup study in 1966 showed that 54 percent were concurrently abusing barbiturates while 35 percent were simultaneously addicted.

Another recent study by our research division shows that it is not uncommon for today's user to consume as many as 15 to 25 different substances. Obviously, one reason for this is availability. But there is another significant factor. Of the many lessons to be learned from this research, we must recognize that the multiple drug abuser, who has been evolving for perhaps a decade, becomes involved in the concurrent use and abuse of this variety of chemical substances because he wants to receive a specific effect and reaction from each. For too long we have focused our research, our concentration, our publications and our treatment programs on what drugs do to an individual. If we are to relate to today's drug abuser, from experimenter to addict, and especially the multiple drug abuser, we must speak in terms of what drugs do for him.

Our studies show that only 7 percent of the total offenses committed by one study group in a year's time involved crimes against the person. But 60 percent of the addicts interviewed had committed such crimes, a remarkable and disturbing increase, by anyone's calculations.

New Jersey officials say that only 18.6 percent of the total number of persons arrested in one study period were drug users. But, 12 percent of the persons suspected of violent crimes were drug users.

The apparent conclusion is that today's multidrug abuser commits crimes of opportunity, with an increased willingness to commit violent crime.

Director John Ingersoll, of the Bureau of Narcotics and Dangerous Drugs, estimated earlier this month that the total drain on the national economy caused by heroin is as high as $3.5 billion, including the cost of crime committed and the law enforcement costs.

The Urban Center of Columbia University said in an April 1971 report that the cost of narcotics-related crime in Harlem alone runs as high as $1.8 billion, exclusive of the costs of law enforcement and crime prevention.

I do not suggest that these figures are contradictory. I do suggest that they constitute a virtual mandate upon the Federal Government reexamine its priorities, particularly since traditional cost of crime estimates fail to include the other incalculable losses suffered by the victims of violent crime. We must add a new dimension to our calculations of the cost of crime, recognizing that the victim of an assault quite often loses not only his property but sometimes also his life, his capacity to earn, and suffers the costs of hospital and medical care. In New York State, aside from treating the addict, we also recognize our responsibility to the innocent victims, not only of the addict but of other criminals as well. In the current fiscal year, New York has appropriated $2.2 million to compensate such victims of crime.

Comparison of Federal effort with New York State

I think it may be useful to compare existing Federal and State programs, not to belittle your efforts, gentlemen, but hopefully to demonstrate what can be done through determined action, and to illustrate why all the States, not just New York, need your assistance.

Since April 1, 1967, the day our commission began operations, Governor Rockefeller and the legislature have authorized more than $475.3 million for the programs of the commission. That sum of almost a half million dollars does not include separate appropriations for the departments of education, health, mental hygiene, State police and others to combat drug abuse.

Our operating budget for the current fiscal year is $91.7 million, compared with our original budget in 1967 of $20.7 million. At its current level, our operating budget is larger than the entire budget of the World Health Organization for all health programs and exceeds the total national commitment for treatment and prevention programs.

In addition, New York State has appropriated $71 million for our special youthful drug abuse programs in the current fiscal year.

During these past 4 years, some 38,933 addicts have been admitted to our public and private programs, exclusive of the youth program which will reach an estimated 25,000 persons.

As of December 31, 1970, there were 10,764 certified narcotic addicts in the various commission facilities and 10,419 addicts under care in private, voluntary agencies accredited and/or funded by the commission.

The Commission this past fiscal year contracted for over $51 million in local assistance funds to create and support new community-based programs to combat youthful drug abuse. These programs, which require matching funds or contributed services by localities, have a gross value in excess of $130 million.

In less than 12 months, we extended one or more program services to each of the 62 counties in New York State.

Our emphasis upon community action is not limited to the youthful drug abuse program. In just 2 years, we created and began funding 338 narcotic guidance councils, citizen units created at the village, town, city, and county level to focus attention on the drug problem and to provide information, education, and assistance to the victims and casualties of drug abuse and their families.

We are currently spending $20 million on 20 methadone maintenance programs, operated by outside agencies, as well as our own internal program, with a capacity to serve a total of 17,000 addicts. This is the most extensive methadone maintenance program of its kind in the country.

The proof of our commitment has many manifestations. The Commission can point to its workshop training courses in which more than 11,000 of our citizens received instruction and training to enable them to render assistance in their communities. We printed and distributed more than 6 million publications on drugs.

There are those in Washington who have noted that our program was recently reduced by the Governor and the legislature. It's important that we speak to that issue.

In the first place, our operating budget was actually increased from $84.4 million to $91.7 million. For the record, that increase is larger than the total amount of money provided the National Institute of Mental Health to implement Public Law 91–513 and is three times larger than the latest reported total that the world community will grant to the United Nations for its new program.

Although we could not, in a time of fiscal austerity, command a budget increase that would permit all of the program expansion we desired, we have achieved certain significant changes in program direction by altering various of our institutional approaches, including a major decision to make virtually all of our facilities multi-modality treatment and rehabilitation centers, thus actually spreading our potential reach further into the addict community.

Ironically, there are those who suggest that because New York State did not vote another major increase in funds we have somehow reduced our commitment and lessened our concern.

Nothing could be further from the truth.

New York State is confronted by a fiscal crisis. I think Governor Rockefeller, who has led the Nation on this issue, has amply documented the economic plight of the states as he has simultaneously argued for a reordering of national priorities and for a system of federal revenue sharing with the States.

Federal officials from many agencies speak proudly of the $135 million Federal drug abuse program. However, it is important to note, in contrasting this figure to our Commission's total budget of $150 million last year, that the Federal outlays included $46 million for law enforcement, $53.4 million for treatment and rehabilitation, $12 million for education and training, and $23 million for research and other support programs.

Those were the budget projections for your current Federal fiscal year—and this Congress declared, and the President concurred, in passing and signing the Comprehensive Drug Abuse Prevention and Control Act and the Drug Education Act, that these Federal efforts were not sufficient.

Public Law 91–513, authorized $428 million over 3 years, including $189 million to the Department of Health, Education and Welfare for community mental health centers, drug abuse education, and special projects. This act authorized expenditures of $23 million in the current fiscal year. Instead of $23 million, HEW allocated only $6.5 million, and these were from supplemental funds.

There can no longer be any question of the need for these funds, from all sections of the country.

Against its $6.5 million allocation, the National Institute of Mental Health received a reported 79 program grant applications totalling $26.5 million, slightly in excess of but in keeping with the amount the Congress also thought was needed—but didn't provide.

I sincerely hope that the recommended appropriation for the next fiscal year will be substantially more than the rumored 5 or 6 million.

Similarly, Congress and the President joined forces to produce Public Law 91–527, an education act whose well-stated public purposes coincide with the purposes enunciated by the President last week.

Yet again, instead of $10 million as authorized, HEW had to use supplemental funds of $6 million. And, of the $3 million available under the institutional grant section of this act, some $2.2 million was reportedly immediately consumed by the refunding of existing programs.

I will quote from a letter sent by an official of the Office of Education:

We regret to inform you that it will not be possible to support your proposed project which was submitted for consideration under the Drug Abuse Education Act of 1970, Public Law 91–527.

Our office received 850 proposals. We appreciate the time and effort which went into the preparation of each one, and the interest and commitment each displayed.

We regret that with available funds, only one of every 18 proposals, a total of 46, could be recommended for support.

The 850 proposals requested $70 million in support, but our appropriation for 1971–72 is only $6 million.

I wish I could provide you with a new deadline for a funding cycle. It is however uncertain at this writing what money, if any, will be available for new projects in 1971–72. However, if you write us in early 1972, we will be happy to provide whatever information we have about 1972–73.

The Office of Economic Opportunity received approximately $13 million for community drug abuse programs, but officials there tell us that more than $10 million was immediately consumed by funding their tremendious backlog of approved but unfunded programs.

FURTHER RESEARCH NEEDS

The record shows, gentlemen, that the national response to your principal legislation of 1970 was overwhelming. The people are in need, because they are afraid, because they want help, because they see the future consequences of current inaction, and because the patients in need are their children.

And so they came to the Federal Government for help, the help promised in laws enacted by this Congress and supported by this Administration. In just two Federal offices, nearly $100 million in programs were authorized—but only $12.5 million appropriated to fund them.

Gentlemen, we are engaged in government, the art and science of politics. We are seasoned professionals who understand the necessities of attaining maximum visibility, even from low profile programs.

I have no quarrel with those in legislative bodies who adhere to the dictums of holding public office, so long as they also insure that the available resources are applied in the most optimal manner, commensurate with the dimensions of the problem.

There is apparently no dispute that New York State, with some 110,000 heroin addicts, not to mention the hundreds of thousands of abusers of other drugs, has the Nation's largest addict population and probably the Nation's largest drug abuser population.

Yet, the National Institute of Mental Health, in setting up its recent 25 target cities program, did not include a single city in New York State.

Our division of research has made the projection that, out of every 1,000 non-white ghetto males, 500 will experiment with drugs, 470 will smoke marihuana, 300 will try amphetamines, 280 will try barbiturates, 190 will try narcotics, 60 will try all four, and 100 will become addicts. We similarly project that 70 percent of these narcotic addicts will become known to the police, 60 percent will receive some form of formal treatment, and 40 percent will remain addicts for at least 10 years.

Despite this knowledge, and despite the obvious dimensions of the problem in New York City and New York State, previous Federal regulations have permitted Federal officials to exclude aid if there is a finding of "appropriate and adequate local facilities."

And, naturally, in New York State, since such findings were always affirmative, the Federal Government has largely directed its efforts elsewhere. One cynical observer recently expressed the view that New York State is being penalized for its initiative and effort. Cynical or not, the record is that the Federal Government provides only minimal support to the New York State program and insufficient support to the individual programs in our cities.

At present, we have two NIMH research contracts totaling $107,000. We received $114,807 in Federal funds for our state-wide survey but we obtained these funds from the New York State Office for Crime Control Planning out of its State block grant funds. Finally, we received $60,000 in funds from the U.S. Department of Labor for an on-the-job training program for our addicts.

All of the $1.06 million in proposals we made to the Office of Education were rejected, although two non-commission programs were approved.

We do not at this time know the fate of our applications to the National Institute of Mental Health, which total $6.8 million.

Obviously, our total program proposals exceed available funds. Originally, when it was still hoped the Congress would appropriate the full amount of the actual authorization, we submitted preliminary applications to NIMH totaling $27.9 million.

We were not demanding the whole of the national appropriation. We were going on the record not only with a statement of our program needs but also with a declaration of those areas of program endeavor in which we and the Federal Government could cooperate to our mutual benefit.

We still seek cooperation on these and other programs. Again, we beseech the Congress to make the authorized funds available.

It is worth noting here that, despite our budget problems at the state level, we did not ask the Federal Government to assume any part of the cost of financing our existing programs. We approached the Federal Government with new programs, programs which we believe would not only improve services for drug abusers but add significantly to our knowledge and expertise with respect to treatment and prevention programs.

For example, we proposed to create: a day care center for youthful drug abusers; a community house program; a therapeutic community center; a multimodality methadone program; a therapeutic center for nonopiate abusers; a therapeutic center for adolescent heroin users; a paraprofessional workers program; a program to combat discrimination in employment against addicts; and a variety of education and prevention projects.

When we speak of priorities, let's establish a very high priority on evaluating the effectiveness of existing drug education programs—before we spend large sums of money on new education programs.

New York State had hoped that such evaluative research would be possible under the Drug Education Act but HEW officials advised us that there were no funds in Public Law 91–527 to support such a project.

Gentlemen, for all of our money spent, both you and I, we know so precious little about drug abuse that it is shocking. We suspect that a factor in the spread of drug abuse has been the failure of drug education programs. Indeed, many authorities are suggesting that we are experiencing an abuse of drug abuse education.

Nor is our need confined to program evaluation. Our division of research has developed an impressive list of research needs, projects which we would like to conduct cooperatively with the Federal Government.

For instance, we need to study acute drug reactions among youth, with important concentration on post treatment activities. We need an intensive investigation of narcotic deaths among youths, with emphasis upon life styles, drug habits, etc., and the incidents preceding death.

We must very soon analyze the relationship of marijuana use and subsequent drug abuse looking not only at transitional factors but also at the phenomenon of association, especially among multiple drug users.

Our current knowledge of onset factors is quite limited, and must be improved quickly by expert etiological research. We must probe the onset of drug use among young people, with special emphasis upon attitudinal studies.

We need to study the economics of narcotic addiction, and the patterns of drug abuse in the new underground. We should survey official attitudes on drugs and rehabilitation.

We need to do followup studies on arrested addicts, and, even to do studies on the children of addicts.

The list is virtually endless, but, it is not impossible.

In this important instance, we want to do more because we have done so much and we know we have the capability to produce the data and findings that will help resolve this national dilemma.

Our list of completed research projects, in addition to the mammoth statewide survey and the on-going special attitudinal and incidence studies in schools throughout our state, is worthy of your consideration. It is attached as an exhibit to this statement.

We do not include this list to boast of our accomplishments but to demonstrate to you the vital role quality research plays in any effective drug program and to underscore again our desperate need for knowledge—and for assistance.

We should, as Governor Rockefeller has suggested, conduct exhaustive research into other chemical means of controlling addiction to narcotics and also to control dependence on other substances. Our interim success in the very long fight against drug abuse could well depend upon our finding such a chemical. However, to those who see such chemicals as methadone as a final solution, or to the others who now jump to proclaim acetyl methydol, let me remind you that chemical maintenance for narcotic addiction does not apply to the vast majority of drug abusers in our society, because the majority are not narcotic addicts.

Some Members of Congress, like drug professionals and lay persons around the country, reach out to methadone and methadone maintenance as a panacea to our problems of narcotic addiction.

There have been significant accomplishments with methadone; it has worked for many addicts. But, it is very much still an experimental program.

There are many unanswered questions about methadone; so many questions in fact persist about methadone maintenance that we cannot at this time call it an answer.

There is strong evidence that a successful maintenance program requires highly effective supportive services. There is evidence suggesting that methadone has limited value in treating today's multidrug abuser. In addition to certain medical problems, there are problems of dose manipulation and the abuse of other drugs.

A series of studies conducted with one group of long-term, stabilized methadone patients disclosed that, during an 8 week period, members of the study group were drug free only 41 percent of the time.

On the other hand, the group abused heroin 35 percent of the time, with lesser use of other drugs. It was disclosed that 14 percent of the group resorted to daily supplementation of their methadone dosage during this period, and that 32 percent of the total study group used cocaine at least once during the 8 week period.

A separate study of a stabilized group in another State revealed that 82.5 percent of the patients had abused at least one of the detectable drugs during a 1 month period. Specifically, 77.5 percent had abused heroin, 30 percent had abused the barbiturates and 25 percent had abused amphetamines. Sixty percent had abused at least two different classes of drugs and 22.5 percent had abused all three.

Moreover, a followup study of this same group 8 months later disclosed that the incidence of drug abuse increased from 82.5 percent to 97.4 percent. Multiple drug abuse was also found to have increased, from 60 percent of the patients to 76.9 percent.

To repeat, methadone maintenance has provided some new answers but it also has posed many new questions and presented new sets of problems. These studies may not be indicative of the whole of methadone maintenance; they do indicate we need much more research into this program and much more knowledge about its administration.

For all these reasons, New York State has adopted stricter control systems to help regulate its expanded methadone maintenance programs.

We are encouraged, as I am sure you are, Congressman Pepper, by the recent announcement of curbs being implemented on the production om amphetamines. I might add my personal opinion that your strong demands for such curbs were instrumental in bringing about this most fundamental and necessary regulation.

At the same time, we are pleased by the recent meeting between President Nixon and Governor Rockefeller which produced an agreement to expand the capacity of our criminal justice system.

Along the same lines, the Federal district attorney in New York has announced that his office will conduct an active program of obtaining treatment rather than incarceration for Federal offenders who are narcotic addicts.

Further program needs

There are those who question the need for supportive services and long-term rehabilitation services, the so-called high cost items in drug treatment. But, gentlemen, our research also indicates that only 24.9 percent of those who receive detoxification without other services remain drug free for any length of time. Eventually, we must accept the fact that we are going to have to learn to live with and control drug usage before we can even hope to eliminate it. A drug cure is a long-term and very complex process, requiring a variety of professional and nonprofessional inputs on a sustained basis. We must face the prospect of requiring such multipurpose programs for many years to come.

The need, not only for a well-funded program, but one which gives priority to those States having the major drug abuse problems was recognized by the last session of Congress in Public Law 91–513.

That law states:

"The Secretary shall make grants under this section for projects within the States in accordance with criteria determined by him, designed to provide priority for grant applications in States, and in areas within the States, having the higher percentage of population who are narcotic addicts or drug dependent persons."

We recognize that this is a project grant rather than a formula grant program but the priority was established in law. To this date, despite our frequent inquiries, officials at HEW and NIMH have not defined what their criteria will be for adhering to the congressional mandate.

By regulation, by necessity, and in keeping with sound practice in the treatment of all handicapped persons, especially youth, we provide in our facilities an excellent and complete educational program, not only for school-age youths, but also for older addicts who lack learning and educational skills.

HEW has ruled, however, that we are not eligible for title I education funds.

If existing Federal regulations are susceptible of only such narrow construction, then obviously the regulations should be changed.

There is a lesson here, gentlemen. We must not become so hidebound to traditional practice, so wedded to narrow concepts, that we create unworkable administrative nightmares.

When we planned the implementation of our $65 million youthful drug abuse program, we concerned ourselves solely with seeking those groups and organizations having a demonstrated capacity and desire to provide services.

Accordingly, we accredited and funded community mental health boards, boards of education, county and local health departments, local narcotic guidance councils, hospitals and clinics, citizen volunteer organizations, youth groups, antipoverty and community action agencies, social service agencies, civic groups, and the like.

It seems to me that we can pursue no other course if our goal is to be true community involvement in programs, and if our purpose is to seek action by the people—for this is truly a people's fight, not just a concern of Government.

To the best of our knowledge, there is no single manpower program or combination of programs which address themselves directly to the problems of drug dependent persons.

To the contrary, the current combination of programs and regulations to implement programs seems to serve only to frustrate agencies like our commission and thus to frustrate our clients.

For example, at present, we have to negotiate separately with an endless variety of city and other State and local agencies in order to participate in neighborhood youth corps and other similar programs.

We have been told of task forces which have examined this problem; we have been told of proposals submitted to this or that official for special manpower programs. We have yet to see any positive programing.

Any such program developed by the Department of Labor must recognize that there is severe discrimination in employment against narcotic addicts and drug abusers in general. We understand the attitudes of fear born of ignorance and, yes of experience, but we believe these can be replaced by policies of reason.

First, Federal and State programs must assist industries with their onboard employees who use drugs. If we cannot treat or rehabilitate or render assistance to those persons who have sufficient motivation to hold jobs and attempt to lead productive lives, we surely cannot succeed with society's casualties, the unmotivated who have no skills, no work experience and low educational attainment.

Indeed, I believe our ultimate success in persuading employers to hire rehabilitated drug abusers and ex-addicts depends entirely on our success in helping them with their onboard employees who are also in difficulty.

Far too many employers are adopting policies of firing any known drug user. Businessmen have told us that in large part their reaction is predicated upon the reported failures and limited resources of so many treatment programs.

In other words, gentlemen, we have not given our businessmen reason to believe in our ability. At the same time, we have not created enough treatment and rehabilitation opportunities, especially for nonnarcotic drug abusers.

We are working with the U.S. Department of Labor to assess the problem of drug abuse in industry which, by all accounts, is substantial.

While it is not true that all heroin addicts are unemployed or that all heroin addicts steal, it is axiomatic that we cannot have long-term success with any individual until we have enabled him to become a useful, self-productive member of our society.

Today, only half of our rehabilitants can find work. Only 15 percent obtain on the job training or institutional program acceptance. The other 35 percent go on welfare; they are critically vulnerable to a resumption of drug usage because society offers them no meaningful alterntaive.

During 1970, our after care officers referred 568 rehabilitants to the New York State Employment Service. The State could place only 173 on jobs and 16 others in training programs. There were 164 addicts who were referred and not hired, while 71 others were told there were no suitable jobs for them.

A major point is that the great majority of these rehabilitants made a sincere effort to get jobs. Only 91 failed to report for their State Employment Service interviews and only 5 of those who were offered jobs failed to report.

The rehabilitants who are the most difficult to place on jobs are precisely those same individuals who are the focus of many of your manpower programs. But, gentlemen, we have seen regulations for some of your manpower programs which specifically permit prospective employers to exclude drug addicts.

Another of our studies has revealed precise correlates between the problems of poverty, unemployment, lack of education, poor health standards, and drug abuse. In fact, in those areas of New York City where these problems are the most severe, you also have your most severe drug problems. (A copy of our report is attached.)

We do not assert that these are the only causal factors in drug abuse today; certainly they are not the factors causing nonnarcotic drug bause in our suburbs. They are, however, influential in the cities.

RECOMMENDATIONS

Gentlemen, in testimony today I have tried to give you some parameters of the drug abuse problem as we see it. Through comparisons of past program efforts, I hope I have shown you some of the mistakes of the past but also some of the opportunities for the future.

The Federal Government must enable local governments and State governments to do more in the areas of treatment, rehabilitation, education, and prevention; you must give us new initiatives in manpower programs. You must help us conduct the research so vital to the success of all our efforts.

I believe the Federal Government would assist itself, and certainly the professionals in the field, if it would coordinate its various drug activities.

We would not attempt to tell you what kind of agency or commission should be established.

We are therefore most encouraged by the announcement that the White House will have a special unit acting as coordinator of the various Federal programs.

Your need, under any administrative mechanism is for a national plan to combat drug abuse—in all its forms. Just as the last session incorporated a priority system into Public Law 91-513, we think the Federal Government should assess the national drug scene, determine the priority areas, their program needs, and concentrate on well-defined objectives within those areas.

From our experience, you will need a powerful, well-funded, and highly flexible administrative mechanism to achieve such a plan and such objectives.

In New York, Governor Rockefeller made the decision to vest funding authority and control over the youthful drug abuser program in our Commission. We proved that we could involve the Departments of Education, Mental Hygiene, and others in this total plan and apply our collective resources to a single program.

Finally, we support and encourage the various U.S. efforts on the international front to control the production and traffic in narcotic raw materials and to assist other nations, through international agencies, with their drug problems. Our State and our Commission have more than a passing interest in such activities because we are truly held captive by forces beyond our control.

It has been argued that we in the treatment, rehabilitation, education, and prevention fields are fighting a holding action. We cannot. in a real sense. this argument goes, win the larger war until you win the battle to control narcotics. The supply is simply too great.

This is not totally true, however. Supply and demand in the narcotics field reinforce each other. Thus, the Federal Government must amend its posture of late which has been to put its primary emphasis on external controls and law enforcement. The legal and medical initiatives must be in balance.

Recall the 1970 report of the World Health Organization's expert Committee on Drug Dependence:

"Until the demand for dependence-producing drugs is markedly reduced. it cannot be reasonably expected that measures to control their availability will have the desired result. A reduction in demand can be achieved only by preventive measures designed to limit interest in drugs on the part of potential users and through effective treatment and rehabilitation of drug dependent persons."

Perhaps the best evidence of this is the case of Sweden which has banned amphetamine production. Yet, according to Dr. Rexed, their national authority, the intravaneous injections of amphetamines continues to be their primary drug problem.

The more commonly used example, of course, is the United States which forbids the production of opium and heroin, yet, is the largest consumer in the Western World.

Recently, an international expert on narcotics confided to us his opinion that the international cartels in narcotics have concluded that the U.S. efforts to control the flow of Turkish opium will succeed, if not this year, in the not too distant future. In this expert's opinion, however, the traffickers have already begun to develop their trade channels to bring opium and heroin from Southeast Asia into the United States. In fact, we are told that opium from this area began reaching these shores in 1969.

It is doubtful that any of these nations or even the traffickers are concerned about "hurting" the United States or inflicting a social dilemma upon us. It is simply a matter of economics. We have the world's key marketplace.

We encourage the U.S. efforts in programs such as crop substitution and crop elimination in overseas countries. There are, however, risks which Mr. Ingersoll is aware of, such as the risk that opium producers will simply take our money to retire one growth area and produce their opium in another.

There are also the problems, as recent reports and news stories suggest, of official involvement by governments or government officials in other nations. Mr. Ingersoll recently charged official connivance on the part of some governments.

We wish the Government the best of success, gentlemen, knowing the many problems. Our success and the lives of our children depend upon your efforts.

We appreciate your frustration that some of the foreign governments really do not have effective control in the producing areas. I think you can appreciate our even deeper frustration because we have no controls at all but must depend on others who have little or no control either.

Mr. Ingersoll's successful effort to create a United Nations fund for drug abuse control is praiseworthy as are the preliminary plans of the United Nations Division for Narcotics and other international agencies to implement the drug program.

We also congratulate the U.S. delegation to the recent World Health Assembly for sponsoring the successful resolution on drug dependence. I should add that our Commission is very proud that Rayburn Hesse, our special assistant for Federal-State relations, was the adviser on drugs to that delegation.

The concern and hopeful involvement of other nations in this problem hold promise for us. For too long this has been thought of as primarily an American problem. As more nations become affected, unfortunately, we have our best chance to attain true international cooperation.

Thanks to the United States, the World Health Organization and its member states became committed to a resultion which declares that narcotic dependence and nonnarcotic drug abuse are major world health problems, requiring the coordinated efforts of the member states and international organizations and agencies.

Similarly, the United States led in the effort to adopt a convention on psychotropic substances and is proposing amendments to the 1961 Single Convention on Narcotics, including mandatory embargoes and inspections.

These two are promising initiatives.

CONCLUSION

There has been a tendency on the part of altogether too many people in this country, including Government officials, to see our drug abusers as something other than social casualties. The black heroin addict suffers from very unfortunate characterizations which stigmatize him even after rehabilitation.

But our adolescent drug abusers also suffer denigration. It's as though only our American youth were drug users, and that the only American youth involved are hippies, bippies, and yippies.

On point one, the European Public Health Committee reported last year that drug dependence and drug abuse are today, in most European countries, a serious social, economic, and medical problem.

That committee reported six discernible trends; a growing incidence among young people; new patterns in drug dependence; a rapid increase of the abuse of well-known drugs among other age groups; a rising frequency of multiple dependencies, occurring in 50 per cent or more of all cases; an increasing number of women dependents; and, a rapidly increasing problem of alcoholism.

As I said at the outset, this is truly a pandemic, and we will watch with interest the response of the European nations, assessing not only the breadth of their commitment, but also their ability to perform without the hypocrisy, indifference, and regressiveness that has stunted too many of our efforts.

Whatever else these young drug abusers may be—acid heads, pot heads, speed freaks, junkies—there is one overriding consideration, one common denominator that must permeate our thinking and our actions—they are our children.

My final question: what will you do to help them?

Addendum

(Commissioner Jones' testimony was drafted prior to President Nixon's program announcement and prior to the release of New York's confidential survey. The addendum contains comments on both. The survey has been approved for release on June 24.)

PRESIDENT NIXON'S PROGRAM

New York State is naturally most encouraged by the President's response to this national emergency, by his declaration of purpose, by his commitment of resources, and especially by his recognition of the need for a proportionate and balanced program.

There are those who would take satisfaction in observing that President Nixon has agreed with them that the existing Federal effort is insufficient. We take no such satisfaction. We have made that point; the record proves that point.

Again, the only productive dialogue in which we can engage this morning is a discussion of the future of cooperative programing.

As my original remarks note, we would not presume to recommend a particular administrative structure to the administration and to the Congress. President Nixon has taken a bold step, an effort obviously designed to give maximum control and coordination.

The final design of that administrative structure will be weighed closely and scrutinized intensely by this Congress, as it should be.

But, let me say this. The President has properly defined a major problem with Federal programing. He has proposed what the Administration believes is a workable solution. The Congress may differ on the mechanics, but whatever your differences, we urge you to reconcile them in the interests of national need, a need that can be met only by coordinated programing.

President Nixon has proposed significant increases in all the major program categories, specifically $105 million for treatment and rehabilitation, $10 million for education and training, $12 million for research, $2 million for special community programs, and $37 million for law enforcement. These increases, if approved, will bring the level of Federal programing for drug abuse up to $371 million.

Importantly, President Nixon, in asking the Congress to give this program its highest priority, said he will take every step necessary to deal with the emergency, including the use of additional funds.

We have details on some of the administration's goals; we do not yet have the specifics on implementation.

Among the goals:

President Nixon makes a critical distinction between law enforcement and treatment and prevention, recognizing that we must destroy the market for drugs by reducing demand—a point we also have emphasized.

At the same time, Mr. Nixon declares we must eliminate, in total, the production of opium.

He underscores the need for research to find suitable and effective medical substitutes.

He proposes to bring the resources of the Government to bear on the problem of addicted military personnel.

Again, we congratulate the President on the balance reflected in this comprehensive approach. We reserve final judgment because his program is still just a plan and we do not know what the important second step will be.

We recommend that the Federal Government consult the major State program administrations to discuss implementation, resources, joint efforts and the like. We recommend that such meetings be held at the earliest opportunity.

For instance, because of budget cuts and program changes, our Commission can make available on short notice up to 800 residental beds and up to 1,300 trained personnel. We could accommodate several thousand addicts on an outpatient basis. Inpatient care is dependent upon the variable of programed length of stay.

Thus, we hope that the administration and the Veterans' Administration will consider contracting for services. Our Commission for one has the capability and resources to enable the Federal Government to implement its veterans program on virtually an overnight basis.

For the record, we are already treating some 1,200 Vietnam veterans in our addiction programs.

This experience causes us some concern about the reported plan of treatment to be used for Vietnam veterans.

As we understand the proposal, addicted veterans would undergo a 7-day detoxification treatment in Vietnam and then be compelled to undergo 3 weeks of mandatory treatment at rehabilitation centers in the United States.

Inasmuch as Congress will reportedly be asked to approve bills authorizing the Government to keep a veteran in service beyond his discharge date, if necessary, to accomplish this treatment, we ask the Congress to consider the pros and cons of utilizing existing and proposed Federal legislation that would certify these veterans as addicts.

A rehabilitation period of 21 days is questionable at best. But, as we read this plan, the Federal Government's responsibility would end there, even though these veterans could avail themselves on a voluntary basis of Veterans' Administration and other facilities.

You and I do not know the rehabilitation period that will be required for any individual soldier, nor even the majority of soldiers.

But, I do know that, unless the Federal Government extends its responsibility for these addicts, New York State and New York City will bear the bulk of the social and fiscal responsibility.

Certification and mandatory treatment are not sentences to confinement. They are a protection for both the addict and society. We have many addicts who respond affirmatively and quickly to treatment; many addicts who are not assigned to residential treatment programs because they have sufficient motivation and stability to live in the community while they receive continuing treatment and assistance.

We would like to help you discharge your responsibility rather than have to bear it for you.

In the education area, we strongly recommend that an early and very high priority be given to an analysis of drug education programs before major sums are spent.

Despite certain cost and social advantages, we recommend the administration and the Congress weigh very carefully any proposals that would give disproportionate weight to methadone maintenance, as opposed to all other forms of treatment. Our prepared testimony more fully explains this note of caution.

Above all, we recommend that the Federal Government make every effort to capitalize upon the experience and knowledge of other professionals in the field and that the Federal Government insure that its resources are committed to the areas of greatest need.

It's more than just the money, gentlemen. We have the capacity and the desire to help you and help ourselves to solve this problem.

THE CONFIDENTIAL SURVEY

I said in my major remarks that our Commission has the finest behavorial science research group in the Nation. The director of that division, Dr. Carl D. Chambers, is with us this morning. And, we are submitting to the Government today copies of our statewide assessment of drug abuse in New York, an extremely sophisticated, highly useful, and most expert document. A summary of the study is included.

Dr. Chambers is to be congratulated on this notable contribution to our state of knowledge, as are the staff personnel of the Commission who assisted in its development and production.

Along with the study, which will be released tomorrow, we are submitting to the committee the following research papers:

1. A Research Overview of the Extent and Types of Drug Abuse in the United States.
2. Considerations in the Treatment of Non-Narcotic Drug Abusers.
3. Self-Reported Criminal Behavior of Narcotic Addicts.
4. The Detoxification of Narcotic Addicts in Outpatient Clinics.
5. The Incidence and Patterns of Drug Abuse Among Methadone Maintenance Patients.
6. Predictors of Attrition During the Outpatient Detoxification of Opiate Addicts.
7. The Rationale and Design for a Multi-Modality Approach to Methadone Maintenance.
8. Characteristics Predicting Long-Term Retention in a Methadone Maintenance Program.
9. The Correlates of Drug Abuse.
10. A Bibliography of Commission Research Reports.

We trust the findings in each of these submissions will be of assistance to the committee in its deliberations.

Chairman PEPPER. Now, if I may, I will call on Governor Shapp of Pennsylvania, Governor Holton of Virginia, Governor Carter of Georgia, and Lieutenant Governor Brickley of Michigan.

We are very pleased this morning to have so many young people here, many of them school pupils. We hope you will learn something of value in the testimony you have heard and the testimony you will hear from these distinguished Governors who now honor us with their presence.

The committee is pleased and honored to have with us at this time four distinguished Americans who have achieved the leadership of their respective States: The Honorable Milton Shapp, Governor of Pennsylvania; the Honorable Linwood Holton, Governor of Virginia; the Honorable Jimmy Carter, Governor of Georgia; and the Honorable James H. Brickley, Lieutenant Governor of Michigan. We have asked these dedicated and distinguished public servants to testify today before the committee because we want to benefit from their experience in dealing with heroin addiction in their States. While we have called for a larger Federal role in combating addiction and in the rehabilitation of addicts, we do not want to give the impression that this is a Federal problem alone. The States have long battled this problem and their help, guidance, and leadership is vital to the success of any attempt to combat addiction. We want to hear from these distinguished leaders of America who are fighting the battle in the front lines, as it were. We want to hear from them as to what their States are doing, what they think the magnitude of the problem is, and what, if anything, in their opinion the Federal Government should do to help them to meet this problem in their respective States and through them, to gain an impression of what the problem is in the country and the need for Federal assistance.

So we are very much honored, Governors, to have you here today. I am advised that Governor Holton is pressed for time, so with the indulgence of the other Governors, we will first call on Governor Holton of Virginia.

STATEMENT OF HON. LINWOOD HOLTON, GOVERNOR, COMMONWEALTH OF VIRGINIA

Governor Holton. Thank you, Mr. Chairman. I appreciate your courtesy in arranging for me to go first. I have had a further complication this morning in that we had some radio trouble coming up, so I really do not have a great deal of time, and I am sorry.

We do have a rising drug problem in Virginia, however. It parallels the national experience in statistics from 1960 to 1969. In that period, there was a 556-percent increase in narcotic addiction in Virginia. That is made a little grimmer and more frightening by comparison of deaths in just a 4-year period. We had only one narcotic death in Virginia in 1966. Last year, we had 20. We have one hospital alone reporting a 350-percent increase in drug abuse patients in just 1 year. Distressingly, more and more young people are becoming addicts. We had, for example, our youngest addict just last week, a child just a week into her 12th year, a confirmed heroin addict, picked up in the Tidewater area of Virginia.

We have tried to develop a sound solution. Though we know there is no miraculous cure, we believe that the correct approach requires coordination of the educational, rehabilitative, law enforcement resources available to tackle the problem. For that reason, just after I took office—as a matter of fact, it was in March of 1970—I created a Governor's Council on Narcotics and Drug Abuse Control by an executive order. The mission of this council was to coordinate the efforts, assets, technology and experience of all of our State agencies in any way concerned with drug abuse and to direct them to a solution of the drug problem. Coordination was their first priority and a summary of the plan of coordination is being submitted to your committee with my testimony, sir.

Chairman PEPPER. It will be received.

Governor HOLTON. We also created regional drug councils. Our State is one of the few that has been divided into 22 planning districts for coordination of all of our services, and we are seeking through the regional drug councils to tie the localities into State effort. It was amazing how many various agencies or volunteer groups there were in some areas of our State working on this. I think we reduced as many as 90 in the Virginia area to eight groups through these regional councils. We asked the regional councils to develop a plan that would bring direction, planning, objectives, and goals against drug abuse to the grassroots level. The assembly, the Legislature of Virginia, also passed a new drug code in 1970 which is very close to the model code. We have this year, in a special session of the assembly, created a new drug strike force within the State police department. This strike force will try across the entire State to move against those criminals who profit by dealing in drugs.

In the education phase, I think we have had very good success. Last summer, in 1970, we gave 200 teachers a 2-week intensive course in drug abuse and use and then required them to go back to their communities to give 10 hours of awareness training to fellow teachers. Now, by awareness training, we meant knowing what the drugs are, the symptoms that the children will exhibit when taking drugs, and some of the syndromes behind the taking of drugs. Those teachers are really in the frontline, Mr. Chairman, and today, through this program, 47,000 of our teachers have been given this 10-hour awareness training and by the end of July, we hope that we will have gotten 55,000 teachers.

That is not enough. We are revising the health curriculum from kindergarten through the 10th grade to include drug education, not just drug information—real drug education. That means that we are going to have to certify teachers to teach the program. It means that we are going to have to retain 1,500 teachers and 2,000 counselors between 1972 and 1974, and we expected to do it. This gives a 2-year period for universities and colleges to gear up to begin to produce certified teachers.

Besides this training, the State is also carefully looking at a program to utilize the PTA's throughout the Commonwealth as a vehicle to give the people of our State the same 10 hours of awareness training, and we hope to reach 2¼ million by 1975. That is the outline of what we are doing in education.

In treatment and rehabilitation, we are really in the beginning of a program and we very strongly feel the inadequacy which is so general in this area of treatment and rehabilitation. We doubt, I think with most everyone, that there is any single type of treatment or rehabilitation which will be successful in all the cases, and we are not confident about even some of the more popular programs. However, we have gone ahead with several. We have tried different therapeutic techniques and we are searching with everybody else to find the best.

The Medical College of Virginia, which is one of our two outstanding medical schools, has a methadone program and it has functioned for 14 months without a single case of death or overdose. It is not just a maintenance program. We have tried to work it in with the other facilities like vocational rehabilitation, job training, and counseling, while the methadone is being used. We are trying to reorient the patient back into productivity; and over a long period of time, we are trying to see if the methadone can be cut back. With this counseling and other rehabilitation effort, we will try to put them back into society.

We have, too, an outstanding example of Federal, State, and local cooperation in a therapeutic community that we recently opened in the Richmond metropolitan area. This was supported by the Richmond community action program with the permission of the city. Our State department of health furnished medical funds and services and some buildings, and we have given them approximately 70 acres of land near Richmond on a State hospital site on loan from the department of mental hygiene and hospitals while operating costs are paid by OEO. This project is going to have a capacity of about 100 inpatients and about 200 outpatients and we will be watching it to see if we can use this as a method of rehabilitation.

The results to date are very exciting. People have come to it voluntarily, are participating enthusiastically in it, and I feel that maybe it may give us some real hope for the future.

Very shortly, our State also will be instituting models within the prison systems to begin work with people who are addicted and abusers of other drugs. In Tidewater, Va., we have underway a plan to use part of our State military reservation which has heretofore been exclusively for National Guard use and very underutilized. We are putting there personnel from the health department, the department of welfare and institutions, the vocational rehabilitation department and the department of education, perhaps with others—I think specifically mental hygiene hospitals. This group of people will go to Camp Pendleton, actually in the bachelor officers quarters, and will live there. They will have a director and they will answer to that director, though they will, as I say, come from these other agencies of State government. The patients will come there for counseling and treatment. We hope that the opportunity for several agencies to interact over each patient's problems will give the program the ability to grow without worrying about the autonomy of any one agency as such. This is a program that will deal mostly with youth.

Now, those are some of the activities that we are doing largely on our own, although as I indicated with the OEO funds, some Federal funds are involved. But let's discuss the cost of the treatment and rehabilitation programs, because I think that is where you are just going to have to help us.

As part of our overall State plan, we have developed major estimated cost requirements for drug abuse treatment and rehabilitation programs to treat 2,000 addicts. That is somewhere between a third and a fourth of the addicts that we estimate we have in Virginia. I have an exhibit that shows how these costs add up to a total of $7,065,000.

That would, as I have pointed out, meet only about a quarter of the addicts. But it would give the minimum to try to get treatment to that quarter and perhaps to experiment and, of course, if we could get the additional funds, we would try to serve all of them.

In fiscal year 1969, we spent approximately $100,000 on drug abuse outside of our alcoholic program. In fiscal 1970, the State spent almost $3 million, and today, we are faced with four times that $7 million figure if we treat them all, or $28 million. It comes at a time when, just like all States, and I am sure Governor Shapp is going to tell you about this, we are very hard-pressed financially. You are hearing that from all your cities and from all your States. We have a $321 million gap in projected revenue and just expenses of carrying on, not even beefing up this drug program that we think is critical.

So the additional costs of the drug program are just going to be extremely difficult for us if we have to do it on our own. If we do it alone, the funds more than likely will have to come out of some other program. It has come on us, the narcotics problem, suddenly, just as it does for everybody else. We have to have all the resources, Federal, State, and local. We emphasize to you that we must have Federal assistance to combat this problem.

(Governor Holton's prepared statement follows:)

[Exhibit No. 22]

PREPARED STATEMENT OF HON. LINWOOD HOLTON, GOVERNOR, COMMONWEALTH OF VIRGINIA

It is a privilege to report to you on the drug problem in Virginia, the steps we are taking to meet this problem, and the need which we have for Federal assistance.

The rising drug problem in Virginia has paralleled the national experience. From 1960–69, there was a 556 percent increase in narcotic addiction in Virginia, according to statistics of the Bureau of Narcotics and Dangerous Drugs. A grimmer measure of the rate of increase is revealed by these statistics: in 1966 there was only one narcotic death reported in Virginia; in 1970 there were 20. One hospital alone reports a 350-percent increase in drug abuse patients in the past year. A very conservative estimate of the minimum number of narcotic addicts in Virginia ranges from 6,000 to 9,000 individuals.

The most tragic fact is that 90 percent of these addicts are under 30 years old. Just last week, we received a report of the youngest addict thus far discovered in our State, a 12-year-old girl.

Faced with the sudden growth of the problem of narcotic addiction to alarming proportions, Virginia has attempted to develop quickly a sound solution. We realize that there is no one miraculous cure. We believe that the solution must come through coordination of the educational, rehabilitative, and law enforcement resources available to tackle this problem.

Therefore, in March of 1970, I issued an executive order creating the Governor's Council on Narcotics and Drug Abuse Control. The mission of this Governor's council was to coordinate the efforts, assets, technology, and experience of all State agencies concerned with drug abuse and direct them to a solution of the drug problem. The first priority of this Governor's council was to develop a State plan to coordinate our efforts. A summary of that plan is being submitted to your committee with my testimony.

We created regional drug councils to tie the localities into the State effort. Each of these regional councils was also charged with the responsibility of developing a plan which was comprehensive and coordinated with the State plan. Thus, we brought direction, planning, objectives, and goals to the grassroots level in our efforts to solve this most complicated problem.

In 1970, we took steps to improve the law enforcement phase of our program. The General Assembly passed a new drug code which closely parallels the Model Code. In 1971, a special session of the General Assembly created a new drug strike force within our State Police Department. This will have the ability and mobility to move across the face of our State after the criminals who profit by dealing in drugs.

In the education phase of our program, in the summer of 1970, 200 teachers were given an intensive 2-week course in drug use and abuse. These teachers then returned to their communities with the mandate to give 10 hours of awareness training to their fellow teachers. By awareness training is meant knowing what the drugs are, the symptoms the children will exhibit when taking them and some of the syndromes behind the taking of drugs.

Virginia recognizes our teachers are the front line of defense in our schools and that education is the long range weapon to thwart the spread of the drug abuse. To date 47,000 of our teachers have been given this 10-hour awareness training. By the end of July we hope to have some 55,000 teachers trained.

We do not feel this is enough in education. The State is now completely revisiting the health curriculum from kindergarten through the 10th grade to include drug education—not drug information but drug education. This then means the State will have to certify its teachers to teach this program. This also means the State has to retrain, between 1972 and 1974, its 1,500 health teachers and 2,000 counselors.

This gives a 2-year period for the universities and colleges of the Commonwealth to gear up to begin to produce certified teachers in this area. Besides this training, the State is also carefully looking at a program to utilize the Parent-Teacher Associations throughout our Commonwealth as a vehicle to give to the people of our State 10 hours of awareness training. Our hope would be for at least 2¼ million people to be trained by 1975.

This brings me to the efforts we are making in the area in which you are most concerned—treatment and rehabilitation. In 1969, Virginia had no rehabilitation program to speak of. Today we have the beginnings of such a program, but we share the feeling of inadequacy which is so general in this area.

We doubt that there is any single type of treatment and rehabilitation program which will be successful in all cases. We are not even confident about the relative merits of the more popular programs used today. Therefore, we have begun with several different models of different therapeutic techniques so that we may determine which will be the best method or methods for Virginia to use in the future.

One of the most respected medical schools in the country, the Medical College of Virginia, has a methadone program. This program has been functioning for 14 months without one incident of death or overdose. It is not simply a maintenance program. The program uses other facilities like vocational rehabilitation, job training and counseling while the drug methadone is being used as a buffer tool to give us time to reorient our patient back into a productive life. Over a long period of time the patient's methadone is cut back as he receives counseling and becomes strong enough to reenter society.

An example of local, State, and Federal cooperation is a therapeutic community recently opened in the Richmond metropolitan area. The Richmond community action program supported this program with permission of the City of Richmond. Medical funds and services were provided by the Department of Health on the State level and seven buildings and approximately 70 acres of land on a state hospital site were loaned to the project by the Department of Mental Hygiene and Hospitals while the operating costs are being paid by the Office of Economic Opportunity. This project will have a capacity of 100 inpatients and approximately 200 outpatients. Again, we will be watching this program as a model to see if Virginia can use this method of rehabilitation.

Several programs of the rehabilitation community type are in different socioeconomic areas, including a methadone clinic in the more rural western part of the State.

The State will very shortly be instituting models within the prison system to begin to work with its people who are addicted and who are abusers of other drugs. In the Tidewater area, plans are on the way to take a good section of one of our military bases, Camp Pendleton—in fact we will use the bachelor officer's quarters—and take personnel from each of the service agencies such as the health department, vocational rehabilitation department, and department of education who will live on the Pendleton project. They will be answerable to only one director and have that director answerable to the board of agencies which submitted the personnel. In this way we give the personnel the freedom to interact over each patient's problem, and give the program the ability to grow without worrying about the autonomy of each agency. This project will deal primarily with youth.

Evaluation of these programs is the key for our State to find the best method or methods to treat and rehabilitate narcotic addicts.

Now, let me discuss the costs of these treatment and rehabilitative programs. As a part of our overall State plan, we have developed major estimated cost requirements for drug abuse treatment and rehabilitation programs to treat 2,000 addicts. I am submitting with my testimony an exhibit outlining these programs and estimates of their major costs. The total estimate is $7,065,000.

Yet, we have an estimated 6,000 to 9,000 narcotic addicts in Virginia at the present time. Therefore, these facilities would serve only approximately one-fourth of the minimum estimated number of addicts. The cost would be approximately four times this $7 million figure to serve the entire minimum estimated number of addicts, or $28 million.

In fiscal 1969, the State of Virginia spent approximately $100,000 in funds on drug abuse outside of alcoholic programs. In fiscal 1970, the State spent almost $3 million on drug abuse programs. Today we are faced with this estimate of approximately $28 million to meet the need just for treatment and rehabilitative facilities.

This comes at a time when Virginia, like all States, is being severely hard-pressed financially. We see a gap of $321.3 million between our estimated revenues and expenses for the upcoming biennium. Thus, additional costs such as these, no matter how important, are very difficult to meet. It may be that they can only be met by taking them out of the hide of another program. The narcotics problem which has come on us so suddenly calls for a marshaling of all of our resources at the Federal, State and local level to check it. We must have Federal assistance, particularly for treatment and rehabilitative programs.

Appendix

DRUG ABUSE TREATMENT AND REHABILITATION PROGRAMS PROJECTED MAJOR PROGRAM COSTS

The development of comprehensive drug abuse treatment and rehabilitation programs in Virginia will require significant funding. The Federal Comprehensive Drug Abuse Control Act of 1970 authorized $75 million to be spent over the next 3 years. If Virginia acts quickly in planning model programs, Federal grants should represent one source of funding for locally based programs.

However, Federal funds alone will not be sufficient to have a major impact on Virginia's drug abuse problem. Significant funding by both the localities and the State is required to develop statewide comprehensive programs. Local funding will encourage community support and a community program orientation. State funding, in addition to providing necessary funds, will provide State agencies the authority to insure program quality control and continuity throughout Virginia.

The total amount of funds required to develop comprehensive drug abuse treatment and rehabilitation programs throughout Virginia is difficult to estimate. Both the demand (number of drug dependent individuals) and cost per patient are not accurately known. However, a key principle discussed previously in the recommended overall program approach section should be reiterated:

> Large programs for any given community should be built on the basis of objective data from a smaller program.
>
> Every present-day program for the treatment and rehabilitation of the drug dependent person has its limitations and remains in the research state.
>
> Any program component not achieving substantial progress toward the defined goals should be abandoned or altered.

The number of drug addicted individuals in Virginia was estimated in the nature of the problem section at a minimum of 6,000 to 9,000 individuals. Of these individuals an estimated (by program professionals) may be drawn into a voluntary rehabilitation program.

Virginia should establish an objective of implementing model programs to rehabilitate a specified number of drug dependent individuals. A goal of 2,000 individuals under treatment and rehabilitation by December 1972 is proposed as an ambitious but feasible goal.

Based on the proposed goal of 2,000 persons, major incremental funding requirements can be estimated. The following section outlines the estimated costs of community-based programs and State agency requirements.

The cost of any rehabilitation program will vary by the number and types of modalities utilized. Based on an analysis of average treatment costs for various program modalities across the country, the potential costs of various modalities in Virginia have been estimated. These are presented in exhibit II–7 on the following page.

Exhibit II–7

Estimated annual costs for various treatment and rehabilitation program modalities and services

MODALITY	*Estimated average annual cost per patient*
Methadone support (including supportive services) Narcotic addicts only. National estimates ranges from $1,200 to $1,800. Cost varies by number of supportive services provided but will be relatively high per patient during development stage.	$1, 800
Therapeutic community (including supportive services) Addicts and nonnarcotic abusers. Estimates range from $3,000 to $6,000. Costs will be relatively high per patient during developmental stage.	4, 500
Medical-Psychiatric approach (including inpatient, outpatient and supportive services) Addicts and nonnarcotic abusers. Based on experience of N.A.R.A. program.	4, 300
Medical-Psychiatric approach (all inpatient) Based on Federal program in Lexington.	10, 400
Civil commitment (including high security residential care plus therapeutic and supportive services) Based on average cost per correctional inmate in Virginia plus estimate of therapeutic costs.	7, 000
STATE PROGRAM SERVICES	
Vocational rehabilitation services Includes cost of purchasing medical and other vocational rehabilitation services. Based on vocational rehabilitation Department estimates.	65, 000
Probation and parole services Based on probation and parole board estimates.	10, 000

NOTE.—Attention is directed to the fact that, although this projection has been prepared from the best available estimates, it is based upon numerous assumptions as to future events and therefore cannot, of course, be completely accurate. It should be viewed as a presentation of the results to be expected if the several assumptions are fulfilled.

In order to estimate the costs of treating 2,000 individuals in a multimodality program, the number of individuals treated in various modalities must be estimated. Since no accurate statistics are available, estimates were based on the experiences of other programs and estimates of knowledgeable professionls in the field. Based on these estimates, approximately 50 percent of the 2,000 patients would be in methadone support programs. Twenty percent would be in the therapeutic or residential communities. Thirty percent would be under medical-psychiatric treatment, both inpatient and outpatient, and other modalities and supportive services.

Exhibit II–8 illustrates a cost "workup" of estimated treatment and rehabilitation costs. In addition, costs for State programs in vocational rehabilitation and probation and parole and estimated initial organizational staffing requirements are also presented.

The funding requirements for community-based treatment and rehabilitation programs approximate $6.2 million. State vocational rehabilitation and probation and parole programs total $750,000. Initial organization staffing requirements for State agencies total $115,000. These costs do not include costs for the proposed civil commitment program since it was recommended that this project not be implemented until local programs have been developed. After development of local programs, costs for a civil commitment program may reasonably be estimated. An average patient cost for civil commitment is included in exhibit II–7.

Federal funds can represent a significant portion of treatment and rehabilitation program costs. The amount of Federal funds received by Virginia will depend on the actual dollars appropriated by Congress for drug abuse and on Virginia's ability to act swiftly in applying for Federal grants.

Exhibit II–8

Estimated major cost requirements for drug abuse treatment and rehabilitation programs (Proposed goal, 2,000 individuals in comprehensive treatment and rehabilitation programs)

	Estimated annual costs
Community-based program costs:	
Methadone support: Narcotic addicts only; 50 percent of proposed goal at $1,800 per year, per patient	$1, 800, 000
Therapeutic communities: Drug abusers or dependent individuals (nonnarcotic) and narcotic addicts; 20 percent of proposed goal at $4,500 per year, per patient	1, 800, 000
Medical-psychiatric programs: Drug abusers or dependent individuals (nonnarcotic) and narcotic addicts; 30 percent of proposed goal at $4.300 per year. per patient	2, 600, 000
Total costs for community-based programs	6, 200, 000
State organization and program costs:	
Vocational rehabilitation: 10 counselors at $65,000	650, 000
Probation and parole: 10 officers at $10,000	100, 000
Total program costs	750, 000
Governor's Council on Narcotics and Drug Abuse Control: One treatment and rehabilitation program analyst	15, 000
Department of Mental Hygiene and Hospitals: Bureau of Community Drug Abuse programs—*initial* staffing costs	70, 000
Bureau director.	
Two local program coordinators.	
Administrative support.	
Welfare and institutions	30, 000
One program coordinator—division of youth services.	
One program coordinator—division of corrections.	
Total State organization costs	115, 000
Summary of program costs:	
Community-Based Programs (both State and locally funded)	6, 200, 000
State organization and program costs	865, 000
Total	7, 065, 000

NOTE.—Attention is directed to the fact that, although this projection has been prepared from the best available estimates, it is based upon numerous assumptions as to future events and therefore cannot, of course, be completely accurate. It should be viewed as a presentation of the results to be expected if the several assumptions are fulfilled.

Chairman PEPPER. Governor, we thank you very much. If you will just stay as long as you can with us.

Next, I want to call on Governor Shapp of Pennsylvania and particularly and publicly to thank the Governor for his great kindness in adjusting his schedule twice to this committee to give us the benefit of his appearance.

We are glad to have you, Governor.

STATEMENT OF HON. MILTON SHAPP, GOVERNOR, COMMONWEALTH OF PENNSYLVANIA

Governor SHAPP. Mr. Chairman, members of the committee, I appreciate this opportunity of appearing before you to talk about the drug problem. I must confess that after listening to the experts from New York and listening to Governor Holton from Virginia, I realize how much of a novice I am in this whole field and how far we have to go in Pennsylvania to really have the effective programs to deal with our drug problems.

I would just like to add one note to this and that deals with what is really causing so many of our people today to turn to drugs. I think we have many disillusioned people in this Nation who see no way out of their present dilemmas of living and as so many in history have done, they have turned to drugs.

I think that Vietnam is just an example of what we are facing nationally. Our men in Vietnam see no way out and they turn to drugs. A lot of our young people are scheduled to go to Vietnam and see their lives more or less as they have planned them being dashed. They turn to drugs.

And I think we find that there are many people in our society who find it very difficult to adjust to the hypocrisies they see all around them and turn to drugs, and in general, people who just feel that they have no future to serve in society and turn to drugs.

If we are effectively to deal with the drug problem, it seems to me we also have to deal with these inconsistencies in our lives, because I think this is just as much a part of any regular treatment that we will have for handling drug addicts. It is part of the educational process that we must deal with, and certainly, it is as important as the controls we will place in our Nation and in our communities to stop the flow of drug traffic. I think the problem of drug abuse in this Nation and certainly in Pennsylvania is the No. 1 social issue of our time. It is an issue that could destroy us.

I might add in reference to something that Governor Holton just said about deaths attributed to drugs, we have had more deaths attributed to drugs in the city of Philadelphia this year than we have to traffic.

I think that this is an indication of how serious the situation is.

I feel that drugs and the drug problem must be contained and controlled. If it is not, then this Nation is going to be in much greater trouble than it is today. It is unfortunate that to date, there has been no concerted nationwide effort to deal with the drug problem, mobilizing the coordinated resources of our National, State, and local governments. I am encouraged by recent announcements from the administration here in Washington that they are going to be moving in this direction. But I think it is important to recognize that this Nation has never fought a battle like this before and we do not have the knowledge that we need. We do not have all the tools, we do not by any means have the funds.

I just cite, for example, this $155 million sought by the Nixon administration. In my opinion, it is woefully inadequate to meet the needs and just listening to the experts from New York talk about $188 million that they are spending there annually in their one State, I think that indicates that the problem is much greater than is realized here by the administration.

In Pennsylvania, we have estimated our statewide needs at a minimum of $45 million. However, facing realistic budget requirements this year, we have appropriated only $20 million in the next fiscal year and I add that this amount will only permit us to inaugurate a reasonable program. The $45 million that I just mentioned really is not the amount we find we would need once we got the program started in Pennsylvania.

I might add in that connection that when I assumed the governorship just 5 months ago, I was a little astounded to find out that despite the fact that we have an esimated number of heroin addicts of somewhere between 30,000 and 50,000 people in Pennsylvania, and about 15,000 to 20,000 of these are in Philadelphia alone, and of course, there are many others using all kinds of other drugs, yet we only had 30 people employed by the Commonwealth to deal with the drug problem in the Commonwealth. These 30 people were employed just to try to contain the illicit flow of drugs in the State. There was no program in Pennsylvania. It was fragmented all over the place, and I will come back to that in a moment.

The economic impact of the drug problem is as startling as the human toll it takes on its victims. In order to make the $50 or $70 or $80 a day it takes to keep the heroin addict alive, the heroin addict usually steals goods with a market value of $100 or $150 or more per day, which he then sells to a fence at a lower price.

Philadelphia alone suffers property loss of over $500 million a year. That is just an estimate. Nobody really knows what it is. Statewide, it would not be unreasonable to claim that the loss approaches at least a billion dollars annually. This is in addition to the fact that two-thirds of the muggings and street crimes in our cities are drug connected.

These are the harsh economic facts and I am sure you are familiar with them. But the question you want answered is this: How can the National Government help us at the State and local level to deal effectively with the problem? Assuming a Federal financial commitment, where would the money go?

When I took office on January 19, I called upon the State legislature in my opening address to inaugurate the first comprehensive statewide drug control and rehabilitation program in the history of the Commonwealth, and I might add to be included in that a coordinated program to deal with alcoholism as well as drugs. We estimated that to get the program started would cost us about $45 million to fund the program. Finally, we settled on a first-year figure of $20 million, spread through a number of departments, with the central coordinating point being a council on drug abuse within the Office of the Governor. This bill is now before the legislature and I hope that within the next couple of weeks, it will be passed.

As I indicated, we found that on a payroll of more than 100,000 on the State payroll, only 30 special narcotics agents were charged with the responsibility of controlling the illicit drug traffic. So first, we intend to upgrade the positions of the narcotics agents, add more men and give them better training.

We intend also to greatly intensify the active role of the State police by giving them more tools, tools that they need to fight traffic and apprehend the wholesalers and retailers. In this connection, although for security reasons I cannot detail the present work of the State police, we are starting with some excellent progress and there will be some news coming out of Pennsylvania very shortly. But we have called for the creation of 240 additional positions for State troopers for assignments to the drug-control force. This is a measure of the tremendous importance which we attach to this problem, in 1 year going from 30 to 270.

In the department of health and public welfare, we intend to expand our programs for rehabilitation and basic and applied research for the cure for addiction.

The status of the rehabilitation of addicts not only in Pennsylvania but throughout the Nation is somewhat in the Dark Ages. I might add that education concerning the danger of drugs in my opinion reaches the level of the stone age. We are far short of the need in terms of rehabilitation. Rehabilitation does not stop at the door of a treatment center. It must follow the former addict back into the world to the point where he becomes once again a productive member of society. We have very little information at our disposal and I hope there would be some from this committee and from the Federal Government and from other States as to how to set up programs to really accomplish this very important aim. Because unless we can get an addict rehabilitated and back into work so that he becomes a member of society in fact, then we are not really doing much because we are just starting the cycle all over again. We are just starting to develop programs in Pennsylvania that recognize this program and we are coordinating programs that are part of community affairs so that part of their funds for ongoing job training goes to former addicts.

We have increased this job training appropriation. Seventy percent of the men presently serving time in our State prisons have drug-connected records. Recognition of the drug problem within our prisons and a program to cope with it will become part of our overall program of prison reform and I am waiting for such a report now from our Department of Justice.

We are also improving our State board of probation and parole to continue seeking Federal grants under LEAA and to provide programs whereby those on probation and parole with drug-connected records will receive the appropriate followup in this vital arm of our corrections system. This is something that has not been done in the State at all and we are just starting it.

Today we are holding a meeting of the appropriate agencies of State government to start chartering a statewide program of returning vets, with special emphasis on drugs. Again, I will be happy to report our proposals to this committee as they are formulated.

As to treatment, presently in Pennsylvania, this is being accomplished by several kinds of facilities. These facilities range from emergency beds in some hospitals for immediate problems to private hospitals for long-range treatment. We have therapeutic communities like Gaudenzia House, Eagleville Sanitorium, and Ten Challenge Farms. We have some halfway houses, some nonprofit treatment centers and counseling organizations. But I must admit to you that this dominant impression received from those many efforts is one of complete fragmentation and I suspect that fragmentation is one of the key descriptions for our nationwide effort thus far.

Another dominant word for that effort is inadequate. In Pennsylvania, we only have six methadone maintenance clinics serving about 1,300 addicts. In the Commonwealth of Pennsylvania, there is no State facility devoted solely to the drug problem.

Let me add that my remarks are not meant to downgrade the fine work of our people at both the private and public levels. They have done an excellent job, particularly in law enforcement and through the Law Enforcement Assistance Agency here in Washington, we have had some Federal help.

But it would be wrong for me to tell you that the fight against drug addiction is not fragmented and inadequate. At best, there are a minimum number of beds devoted mainly to detox at State hospitals. Programs of rehabilitation, and aftercare to the extent that they are available, are privately administered with a negligible degree of State and local involvement.

These activities must become coordinated and recognizing the need for coordination, I have already discussed one area, for example, with Governor Cahill of New Jersey, a different kind of coordinating plan, a joint effort between our States to stop the illicit traffic of drugs over State lines.

But we desperately need much more than our State can provide. We need more and better facilities, professional people in greater numbers, better enforcement, a better education program, starting in the earliest grammar school grades. All of these call for a massive infusion of help from the Federal Government.

I might add in this connection that some of the studies I have been looking at indicate that perhaps we should be starting our educational program via television, educational television networks, and so on, at kindergarten and prekindergarten years so we can get the minds set at the "no-no" level very simply so that these youngsters recognize that drugs are just not something that are to be played with.

Gentlemen, I just ask that you help us with professional assistance and financial resources and I think this job can be done. But I think we would be wrong to say that it can be done with the provisions of the present administration bill. I think that we are thinking just in terms of $45 million for our State and the Federal Government is recommending a program that is less than one State is already spending and they think that is inadequate. I think that if we are really going to challenge this thing and come to grips with the drug problem, we are going to have to look to a massive program. Then I think we can make strides but only if we apply our collective resources and imagination to solving this issue.

I appreciate this opportunity of bringing you up to date about what is happening in Pennsylvania. I am sorry I cannot come and report to you that we are doing great things in our State because most of the things that we want to do are still in the embryonic planning stage.

Chairman PEPPER. Governor, we thank you very much for your very able statement.

(Governor Shapp's prepared statement follows:)

[Exhibit No. 23]

PREPARED STATEMENT OF HON. MILTON J. SHAPP, GOVERNOR, COMMONWEALTH OF PENNSYLVANIA

The drug traffic in this nation is the number one social issue of our time.

It could destroy us.

But it could also be contained, controlled and, finally, defeated by enlightened Government action.

It is unfortunate that there has been no concerted, nationwide effort to deal with the drug problem, mobilizing the coordinated resources of national, State and local government.

Recent announcements by the administration here in Washington, and other national sources, are encouraging.

But we have never fought a battle like this before.

We do not have the knowledge we need.

We don't have all the tools and we don't by any means, have the money.

For example, the $155 million sought by the Nixon Administration is woefully inadequate to meet the need.

New York state alone spends $188 million annually.

In Pennsylvania we have estimated our statewide needs at a minimum of $45 million. Facing realistic budget requirements, we have appropriated $20 million for the next fiscal year. This amount will but permit us to inaugurate a reasonable program.

But if such amounts are needed in New York and Pennsylvania, it is obvious that much more than the $155 million allocated by President Nixon will be needed nationwide if we are to really come to grips with this problem.

Gentlemen, you must make up your minds to wage total war on the drug traffic in America.

That war will call for an enormous commitment of our knowledge and our resources.

The alternative to such a commitment will surely be more wrecked lives, further social deterioration, an ever increasing crime rate and ultimately the potential destruction of our society.

In Pennsylvania today, our best estimate of the number of heroin addicts is between 30,000 and 50,000 persons.

In Philadelphia alone there are between 15,000 and 20,000 heroin addicts and between 25,000 and 30,000 persons addicted to other narcotics or dependent upon other dangerous drugs.

The economic impact of the drug problem is as startling as the human toll it takes of its victims.

In order to make the $50 or $70 a day it takes to keep the habit alive, the heroin addict usually steals goods with a market value of $100 to $150 or more which he then sells at a lower price.

Based on these figures, Philadelphia alone suffers a property loss of over $500 million a year. Statewide, it would not be unreasonable to claim that the loss approaches a billion dollars annually. This is in addition to the fact that two-thirds of the muggings and street crimes are drug connected.

Those are the harsh economic facts, facts with which you are probably all too familiar.

But the question you want answered today is this: How can the national Government help us, at the State and local level, to deal effectively with the problem? Assuming a Federal financial commitment, where would the money go?

When I took office last January, I called upon the State legislature to inaugurate the first comprehensive statewide drug control and rehabilitation program in our history, to include the problem of alcoholism.

As I said before, estimates as high as $45 million were made to fund the program. Finally, we settled on a first year figure of $20 million, spread through a number of departments, with the central coordinating point being a council on drug abuse within the Office of the Governor.

I was astounded to find that the State of Pennsylvania had, on a payroll of more than 100,000 people, only 30 special narcotics agents charged with the responsibility of controlling the illicit drug traffic.

So, first, we intend to upgrade the positions of the narcotics agents, add more men, and give them better training.

Second, we intend to greatly intensify the active role of the Pennsylvania State Police by giving them the tools they need to fight the traffic and apprehend the wholesalers and retailers. For security reasons, I cannot here detail the present work of the State Police in this regard, but I can assure you that their work will have an impact. In my budget for next fiscal year, I have called for the creation of 240 additional positions for State troopers for assignment to the drug control force.

In both the departments of health and public welfare, we intend to expand our programs for rehabilitation and for basic and applied research into the proper cures for addiction.

The status of the rehabilitation of addicts, not only in Pennsylvania, but throughout the Nation, is in the Dark Ages. I might add though that education concerning the danger of drugs reaches the level of the stone age.

We are far short of the need in terms of rehabilitation. Rehabilitation doesn't stop at the door of a treatment center. It must follow the former addict back into the world, to the point where he becomes, once again, a productive member of society.

We are starting to develop realistic programs that recognize that process in Pennsylvania.

For that reason, I have wholeheartedly endorsed the proposal by my department of community affairs that they use part of their ongoing job training program to train former addicts for employment. I have increased their job training appropriation for next year, but we are short of sufficient funds to do the job to the fullest extent since we are only able to produce $4 million for the entire program.

Seventy percent of the men presently serving time in State prisons have drug connected records. Recognition of the drug problem within our prisons and a program to cope with it will become part of our overall program of prison reform.

But, at the same time, I am encouraging our State board of probation and parole to continue seeking Federal grants under LEAA and to device programs whereby those on probation and parole, with drug connected records, can receive the appropriate followup in this vital arm of our correction system.

At this point, I want to mention that I am fully aware of the tremendous problem of drugs among our returning Vietnam veterans. Today we are holding a meeting of the appropriate agencies of State government to chart a statewide program for returning veterans, with special emphasis on the drug situation. I shall be happy to report our proposals to this committee.

Presently, in Pennsylvania, treatment is being accomplished by several kinds of facilities. These facilities range from emergency beds in some hospitals for immediate problems to private hospitals for long range treatment.

We have therapeutic communities like Gaudenzia House, Eagleville Sanitorium and Teen Challenge Farms. We have halfway houses, nonprofit treatment centers, and counseling organizations.

The dominant impression received from those worthy efforts is one of fragmentation. I suspect that "fragmentation" is one of the key descriptions for our nationwide efforts thus far.

Another dominant word for the effort thus far is "inadequate."

There are only six methadone maintenance clinics in Pennsylvania, serving approximately 1,300 addicts.

And the Commonwealth of Pennsylvania has no State facility devoted solely to the drug problem.

Let me add that my remarks are not meant to downgrade the fine work done by our people at both the private and public levels.

They have done an excellent job.

Particularly through the Law Enforcement Assistance Agency here in Washington, they have had Federal help.

But, if they were with me today, they would tell you the same thing I am telling you, that the fight against drug addiction is fragmented and inadequate.

At best, there are a minimum number of beds devoted merely to detox at some State hospitals. Programs for rehabilitation and for after care, to the extent they are available, are privately administered with a negligible degree of State or local involvement.

These activities must be coordinated. Recognizing the need for coordination, I have already discussed with Governor Cahill of New Jersey a joint effort between our States to stop the illicit traffic in drugs over interstate lines.

Under our 1971–72 budget proposal, the State will do more to cooperate with the local communities.

But we desparately need much more than even the State can provide.

More and better facilities, professional people in greater numbers, better enforcement, a full education program starting in the earliest grammar school grades, and all of these initiatives call for a massive infusion of help from the Federal Government.

Gentlemen, provide the professional assistance and financial resources of the Federal Government to our States and the job can be done.

When analysing the national need, remember that $45 million is what we really need to cope with the drug problem in the nation's third largest State for the first year of operation. Remember that our State appropriation is also $20 million. Extend those figures nationwide and you will get a good idea of the minimum needed from Washington.

The important thing now is to act.

I am convinced that we can make great strides if we but apply our collective resources, and imagination to solving the No. 1 social issue of our time.

Thank you.

Chairman PEPPER. We will now hear from Governor Carter of Georgia.

STATEMENT OF HON. JAMES CARTER, GOVERNOR, STATE OF GEORGIA

Governor CARTER. Thank you, Mr. Chairman. I am particularly thankful to be here this morning to hear the testimony, particularly from New York, and also to hear the other two very fine Governors tell about the program in their own States.

The State of Georgia is experiencing just the initial throes of a heroin epidemic. In Atlanta, doctors who are working daily with heroin users, including Dr. Peter Bourne, just behind me here, now estimate that in the metropolitan area alone we have 5,000 heroin addicts, a figure that has been determined from the number of deaths from overdose of heroin. I understand that the multiplication factor involved State and nationwide is perhaps one to 200. Recently in the last few months, we have had this 5,000 figure increase because we now have an average of one death per week from an overdose of heroin in Atlanta, compared to an estimate of a total number of heroin addicts in Atlanta 12 months ago of less than 2,000. So we have seen our heroin addiction increase from 2½ to five times in Atlanta itself over the last 12 months.

If the experience of other cities holds true, we can anticipate that this will be increasing at least double or triple in the next 12 months. Hundreds of addicts have also been reported in the other major cities of Georgia like Savannah, Columbus, Macon, Augusta, and so forth.

We have had in the past up until this point a dependence upon Atlanta and Fulton County, which is the county in which Atlanta is located, for them to conduct their own heroin control program, financed in part by State funds. Within the last few weeks, they have simply thrown up their hands and said, we cannot contend with this program and we hereby turn it over completely to the State of Georgia. The skyrocketing rise of heroin addiction across Georgia has produced an emergency which exceeds by far the abilities of the local administrators and local treatment facilities and the judicial system and the jails and the laws enforcement agencies to handle this very great need. And as Governor of Georgia, I have now accepted full responsibility for developing and coordinating our response to this emergency.

I do not intend this morning to outline in detail plans which have been promulgated for combating heroin addiction. I would like to say that I will expect our program to result in a radical improvement in the services available to addicts, that we will look for opportunities for regional cooperation within all the Southern States, and that above all, we will attempt to develop flexible and varied services so that each addict can be treated as an individual, with unique needs.

I think it is more appropriate for me today to give my thoughts to you about the problems of heroin addiction in the armed services and how this problem affects Georgia. Georgians have always held the military professions in high regard and we have probably tended to join the armed services in highly disproportionate numbers. Today, some 71,500 Georgians are serving in the armed services. We know that many of these Georgians have been exposed to heroin use in Vietnam and Europe and we can expect them to bring their habits home when they return.

Further, Georgia is the location of several of our country's largest military bases. Eighty-one thousand servicemen and women are stationed at Georgia's 11 military bases. Fort Benning in Columbus, which is near the Alabama line, and Fort Gordon in Augusta, near the South Carolina line, together have more than 50,000 personnel, or about two-thirds of the total in Georgia.

Military operations are an important part of Georgia's economy—and military personnel are a large part of our heroin addiction problem. Although precise information dealing with heroin use in the Armed Forces is simply not available, it is probably safe to estimate that the return of Vietnam veterans, either to Georgia military bases to serve in the Armed Forces, or to civilian life in Georgia after discharge, will double again the heroin addiction problem in my State in the coming year.

To Georgians, therefore, it is crucial that the Armed Forces carry out thorough and conscientious rehabilitation programs for servicemen who are addicted to heroin. Let us make no mistake—the heroin addiction that is growing so rapidly among our troops in Vietnam is in large part the result of a problem in morale, discipline, and leadership. The blame for this breakdown rests with the Military Establishment; the responsibility for caring for veterans who are disabled by heroin addiction must also rest there.

Chairman PEPPER. I met this morning, immediately before coming here, at the Pentagon with the two men responsible for the armed services program on heroin addiction, Mr. Hobson and General Tabor. I came to ask them their plans for helping the States, particularly Georgia, in future care for heroin addicts who are being discharged. I was extremely disappointed because their complete commitment to me was, in effect:

> We are responsible for heroin addicts who contract this addiction in the armed services only up to the date when they are discharged. We anticipate keeping them within the armed services for an additional 30 days and perhaps 60 days; at that point, our responsibility ends.

They hopefully expressed some opinion that the Veterans' Administration might help with this problem, but they very quickly pointed out that the Veterans' Administration now only has five regional centers for the treatment of heroin addiction, that this ultimately over a period of years might be expanded to 30.

Our experience in Georgia has been that heroin addicts are not going to leave their own habitat, their own communities, to travel to any distant point for concerted treatment for heroin addiction, even across a city where it requires a bus ride or the hiring of a taxicab to go for the daily treatment required.

We also asked them if they would be willing to give us records to inform us when a heroin addict was being discharged to take his place within one of the Georgia communities. General Tabor said that he wished this could be the case, but he did not have any reason to assume that the military forces would give me as Governor or the head of our drug treatment program any information about a discharged serviceman who did have this affliction. I pointed out to him that this should be parallel to a man who has tuberculosis or a more serious disease and that we ought to be able to know the identity of a returned serviceman who still had the heroin addiction so we could care for him, offer him service, and observe his operations.

Dr. Bourne, behind me, just recently had one of the armed services veterans tell him that he was personally responsible for 50 additional addicts having acquired the heroin addiction in order to finance his own addiction within the city of Atlanta.

I am concerned that the Military Establishment will shirk this responsibility and that no Federal agency will assume it for them. We understand that the typical heroin addict in the military is not very different from his counterpart in civilian life. He did not finish high school, he comes from a broken home, and there is a good chance he is a member of a minority group. In all likelihood, he is a draftee, and no one would argue that treating his habit is essential to the military mission. When he returns to civilian life, he will find himself on the street with little chance of landing a good job. In short, he is powerless, and it is not hard to suspect that the Armed Forces would be happy to quietly sweep him under the rug, or into the hands of civilian agencies.

The Armed Forces and the Federal Government should not be allowed to discharge their responsibility for heroin addiction by simply retaining an addict on active duty for an additional 21 days of treatment. There is no 21-day cure for heroin addiction, and it is dishonest to lead the American public to believe this. To the Vietnam veteran who is retained, and to the civilian agencies that must eventually provide him services, 4 short weeks of extra treatment by the military is a cynical joke.

If the Armed Forces take seriously their responsibility for treatment of their heroin addicts, then I am convinced that Georgia can bring its heroin emergency under control. In Georgia, I will make every effort to assure that State and military efforts are coordinated. I intend to propose that a joint drug abuse coordinating committee be established, with membership consisting of the Governor and the commanding officers of the major military bases in Georgia or our representatives after the coordinating agency is formed. This committee would meet regularly to discuss progress, the impact on servicemen, both those discharged and those still on active duty.

I am not convinced that the Veterans' Administration alone should be expected to be capable of mounting the many types of programs required to treat heroin addiction among returning servicemen. I hope that we will be able in Georgia to arrange for contracts between the Veterans' Administration and those civilian programs which will complement VA programs. The Veterans' Administration might, for example, contract with Georgia's statewide program to operate storefront treatment centers in cities where military bases are located. Or the Veterans' Administration might seek epidemiological advice from the U.S. Public Health Service's National Center for Disease Control, located in Atlanta.

We also asked General Tabor if it would be possible to have young draftee doctors work part time, after hours, even with pay, with the State agency to help us control drug addiction in communities near military bases. He was very discouraging in his answer and thought that the Surgeon General would not be willing for these young men, who often work 8 hours or less per day in military service, to help us in these communities. We would hope that this could be arranged.

A simple solution may be joint financing of our overall drug addiction program for Georgia, which will cost from $4 million to $7 million annually—a cost which we cannot afford and which has not been budgeted.

At the Democratic Governors' Conference in Omaha last weekend, I discussed heroin addiction with other Governors and particularly southern Governors. They and I believe that the heroin addiction problem offers important opportunities for regional cooperation, such as centralizing laboratory facilities and record systems. At the present time in Georgia, private laboratories cost $5 to $6 per urine sample to have tests made for controlling heroin use. I understand this can be done for about $1 and we would be happy to see a laboratory established in Atlanta or perhaps a recordkeeping system established in Atlanta to serve Georgia, South Carolina, Tennessee, and other surrounding States. I expect to set a date in the near future for a meeting of southern Governors in Atlanta to which representatives of the White House, the Pentagon, and successful drug treatment programs would be invited. We passed a resolution out there in Omaha expressing our concern about the inadequacy of the administration's program:

> Because of inaction of the present administration, drug abuse now menaces the health and life of an alarming number of American private citizens and servicemen, and is a major cause of violent crime. The National Government must utilize the instruments of foreign policy to cut off the supply lines of illicit drug traffic, support research which will yield a better understanding of the consequences of drug use, stimulate an intensive educational program that will reach all of the Nation's communities, provide more significant funding for the treatment of those who are drug dependent, and enforce effectively Federal laws against domestic criminal elements engaged in the drug traffic. The recent proposals of the Nixon administration, which come tragically late, fall far short of achieving any of the above objectives.

We absolutely must have an adequate Federal program to help us now to meet this critical problem. We Georgians are ready to move on a well-coordinated State and regional plan as soon as Federal financial assistance and cooperation of the Department of Defense and other Federal agencies is available. We now have available some OEO funds. We would hope that they would be coordinated with an overall State plan.

Dr. Bourne informs me that we have used successfully methadone. It was first used in Georgia in August 1970. We have 530 patients who were treated over an 8-month period on a methadone withdrawal program, of whom within 60 days, 70 percent reverted to their previous addiction. We now have 60 patients on methadone maintenance. We feel methadone is an excellent tool for the treatment of addiction of heroin, based on our own experience and knowledge from Washington, D.C., and New York. We have never had an adequate program to utilize it effectively. We recognize the dangers involved. We have never had a serious incident or death from overuse of methadone in Georgia.

I notice that Dr. Chambers, or I think Mr. Jones, said that methadone was only effective in 20 or 30 percent of the cases. I think this is certainly true in a permanent withdrawal or treatment or corrective situation. But if you put into the picture the effect of heroin addiction on the crime rate, we believe that it will seriously or greatly alleviate the problem in at least 80 percent of the cases.

A recent interrogation by me of the Atlanta police authorities resulted in the information that 75 percent of the robberies recently committed in Atlanta were caused by heroin addicts.

Well, I would like to express my own personal appreciation on behalf of the State of Georgia to this committee for bringing to light an extremely serious problem which has now progressed far beyond what it should have. I can assure you that if the Federal Government would give us the means and the advice and the information, we will strive with the greatest determination toward correcting what I consider to be the most serious single problem in Georgia today.

Thank you, Mr. Chairman.

Chairman **Pepper.** Governor Carter, we thank you very much for your able statement.

(Governor Carter's prepared statement follows:)

[Exhibit No. 24]

PREPARED STATEMENT OF HON. JIMMY CARTER, GOVERNOR, STATE OF GEORGIA

Thank you, Mr. Chairman, for this opportunity to testify before your committee.

The State of Georgia is experiencing the initial throes of a heroin epidemic. In Atlanta, doctors who are working daily with heroin users agree in their estimates that the metropolitan area now has some 5,000 heroin addicts, a figure which is substantiated by the number of deaths from heroin overdoses. Twelve months ago, these same doctors estimated less than 2,000 addicts in Atlanta. If the experience of other cities holds true, we can conservatively expect that there will be more than 10,000 heroin addicts in Atlanta by June 1972. Hundreds of addicts have also been reported in Savannah, Columbus, Macon, Augusta, and other metropolitan areas.

The skyrocketing rise of heroin addiction across Georgia has produced an emergency which exceeds by far the abilities of local treatment facilities and judicial systems to meet the need. As Governor of Georgia, I have accepted full responsibility for developing and coordinating our response to this emergency. I intend to place all the resources of my office behind our effort to check the increase in heroin addicttion.

I do not intend this morning to outline in detail our plans for combating heroin addiction. I will simply say that we expect our program to result in a radical improvement in the services available to addicts; that we will look for opportunities for regional cooperation by the Southern States; and that, above all, we will attempt to develop flexible and varied services, so that each addict can be treated as an individual with unique needs.

I think it is more appropriate today to present to you my thoughts on the problems of heroin addiction in the armed services, and how that problem affects Georgia.

Georgians have always held the military professions in high regard, and we have probably tended to join the armed services in disproportionate numbers. Today, some 71,500 Georgians are serving in the Armed Forces. We know that many of these Georgians have been exposed to heroin use in Vietnam and Europe, and we can expect them to bring their habits home when they return.

Further, Georgia is the location of several of our country's largest military bases. There are 81,000 service men and women stationed at Georgia's 11 military bases. Fort Benning in Columbus and Fort Gordon in Augusta together have more than 50,000 personnel, or about two-thirds of the total in Georgia.

Military operations are an important part of Georgia's economy—and military personnel are a large part of our heroin addiction problem. Although precise information dealing with heroin use in the Armed Forces is simply not available, it is probably safe to estimate that the return of Vietnam veterans, either to Georgia military bases or to civilian life in Georgia, will double again the heroin addiction problem in my State in the coming year.

To Georgians, therefore, it is crucial that the Armed Forces carry out thorough and conscientious rehabilitation programs for servicemen who are addicted to heroin. Let us make no mistake: the heroin addiction that is growing so rapidly among our troops in Vietnam is in large part the result of a problem in morale, discipline, and leadership. The blame for this breakdown rests with the Military Establishment; the responsibility for caring for veterans who are disabled by heroin addiction must also rest there.

I am concerned that the Military Establishment will shirk this responsibility. We understand that the typical heroin addict in the military is not very different from his counterpart in civilian life. He did not finish high school, he comes from a broken home, and there is a good chance he is a member of a minority group. In all likelihood, he is a draftee, and no one would argue that treating his habit is essential to the military mission. When he returns to civilian life, he will find himself on the street with little chance of landing a good job. In short, he is powerless, and it is not hard to suspect that the Armed Forces would be happy to quietly sweep him under the rug, or into the hands of civilian agencies.

The Armed Forces should not be allowed to discharge their responsibility for heroin addiction by simply retaining an addict on active duty for an additional 21 days of treatment. There is no 21-day cure for heroin addiction, and it is dishonest to lead the American public to believe this. To the Vietnam veteran who is retained, and to the civilian agencies that must eventually provide him services, 3 short weeks of extra treatment by the military is a cynical joke.

If the Armed Services take seriously their responsibility for treatment of their heroin addicts, then I am convinced that Georgia can bring its heroin emergency under control. In Georgia, I will make every effort to assure that State and military efforts are coordinated. I intend to propose that a joint drug abuse coordinating committee be established, with membership consisting of the Governor and the commanding officers of the major military bases in Georgia. This committee would meet regularly to discuss progress on existing programs, and to initiate new efforts.

I am not convinced that the Veterans' Administration alone should be expected to be capable of mounting the many types of programs required to treat heroin addiction among returning servicemen. I hope that we will be able in Georgia to arrange for contracts between the Veterans' Administration and those civilian programs which will complement VA programs. The Veterans' Administration might, for example, contract with Georgia's statewide program to operate storefront treatment centers in cities where military bases are located. Or the Veterans' Administration might seek epidemiological advice from the U.S. Public Health Service's National Center for Disease Control, located in Atlanta.

A simple solution may be joint financing of our overall drug addiction program for Georgia, which will cost from $5 million to $7 million annually—a cost which we cannot afford and which has not been budgeted.

At the Democratic Governors' Conference in Omaha last weekend, I discussed heroin addiction with other southern Governors. They and I believe that the heroin addiction problem offers important opportunities for regional cooperation, such as centralizing laboratory facilities and record systems. A regional approach to the problem of heroin addiction among returning Vietnam veterans would also be important. I expect to set a date in the near future for a meeting of southern

Governors in Atlanta to which representatives of the White House, the Pentagon, and successful drug treatment programs would be invited.

Here is a resolution passed unanimously by the Nation's Governors assembled in Omaha: "Because of inaction of the present administration, drug abuse now menaces the health and life of an alarming number of American private citizens and servicemen, and is a major cause of violent crime. The National Government must utilize the instruments of foreign policy to cut off the supply lines of illicit drug traffic, support research which will yield a better understanding of the consequences of drug use, stimulate an intensive educational program that will reach all of the Nation's communities, provide more significant funding for the treatment of those who are drug dependent, and enforce effectively Federal laws against domestic criminal elements engaged in the drug traffic. The recent proposals of the Nixon administration which come tragically late fall far short of achieving any of the above objectives."

We absolutely must have an adequate Federal program to help us now to meet this critical problem. We Georgians are ready to move on a well-coordinated State and regional plan as soon as Federal financial assistance and cooperation of the Department of Defense and other Federal agencies is available.

In closing, I would like to commend the Select Committee on Crime for its efforts to shed light on the problem of drug abuse. I can assure you that, in Georgia, we are unequivocally committed to the task of finding effective solutions.

Chairman PEPPER. Now we are privileged to hear the distinguished Lieutenant Governor of Michigan, Lieutenant Governor Brickley.

STATEMENT OF HON. JAMES H. BRICKLEY, LIEUTENANT GOVERNOR, STATE OF MICHIGAN (ON BEHALF OF GOV. WILLIAM G. MILLIKEN)

Lieutenant Governor BRICKLEY. Mr. Chairman, members of the committee, and Governors. First of all I express Governor Milliken's regrets at his inability to be here but he has been using me very heavily in his administration with regard to law enforcement—I have a law-enforcement background—and in connection with his drug programs. As a Lieutenant Governor, I have great respect for Governors. I was impressed with the chairman's statement when I was listening a while ago and you said you were trying to establish the magnitude of the problem and the magnitude of the effort. I think that puts it well. I think to do that, my experience tells me that we ought to begin by disabusing ourselves, I think, of certain notions that we have had. I think the late start we are getting nationally, all of us, in combating this problem has been due in part to some of these false notions we have had. We ought to disabuse ourselves that if we could just arrest a few top organized crime officials, we would turn the problem around.

We ought to disabuse ourselves of the notion that if we could just get a few foreign countries to control the heroin and the opiates, we would turn the problem around.

I think we ought to disabuse ourselves of the notion that if we just had stronger, more punitive laws, that would do it.

I think we ought to disabuse ourselves of the notion that if we could just come up with a secret drug, the secret antidote, that that would be the way out.

We ought to disabuse ourselves of the notion that if we just relieved the suffering of those who are suffering from drug addiction, that would be the answer.

The truth is we have to do all of those things and maybe even doing all of them is not going to turn it around. Because as Governor Shapp indicated, and I listened very carefully to his opening comments because I agree with them, as long as we have significant numbers of people who in this very affluent society find it necessary to escape from its realities, that should tell us something about, I think, some very basic defects in our culture and our society.

Obviously, we are not going to turn those things around overnight. I think they have been a long time in the making and those of us who are not addicted to drugs, perhaps we bear our share of the responsibility, our generation, for getting ourselves into this drug culture and this very unfortunate situation. But meanwhile, back at the ranch, so to speak, we have to, as I indicated, move on all these fronts.

Let me just say that the thing I think you are primarily interested in is the relation of drug abuse to general crime. My seat-of-the-pants opinion on that is that the drug abuse problem is strongly related to a significant portion of the street crime. As I have heard some of those from New York say, it also accounts for some of the more vicious type of crime, the more spontaneous type of crime, the type of crime that is more difficult to detect law enforcementwise because it is not motivated by people who know one another and so forth. And again, the most atrocious types of crime. I have heard figures of 30 or 40 percent.

There is a New Jersey study that I just saw for the first time several days ago that indicates only about 10 percent of those arrested over a given sample period in New Jersey committed other crimes because of the drug addiction. I frankly find that very difficult to believe. I think it has to be higher than that and there have been some less formal studies made in Detroit, Wayne County, which indicates that it goes up as high as 40 percent. But it is enough, anyway, whatever it is.

I think we have to be ready to accept the fact that stricter enforcement, which we are starting to get now—I know in our community we are—is also going to raise the price of heroin and is going to cause a more harried crime-committing spree by those who feed the drug addicts, which would indicate that we should be all the more ready to treat those who are addicted.

Now, even though I do not suggest that methadone obviously is the answer, that is the kind of approach that got us into the drug culture in the first place, an easy way out; nevertheless, we have a fire on our hands and we have to use what we have. We have to use methadone because it does give some immediate relief to the social problem as well as to the person addicted.

There has been some reference to the drug war in Detroit, Mr. Chairman, and it has been reported nationally. In my statement I say things like "running territorial war." I have to be honest with you and say the gist of my comments now, after this statement was prepared and sent up to you, is I have tailored my feelings on that after talking with some of the police intelligence people in Michigan, that it is not really a territorial war; so says the best thinking right now. It is really a question of crimes being committed within the drug community, the so-called ripoff, where one drug pusher robs another because they know where each other is and they know they are very vulnerable, they cannot go to the police. So in that, it is something like the organizational battles that took place in the 1920's in traditional organized crime, to establish the disciplines. If that is the case, that is pretty bad news, because it indicates that it is getting more entrenched, that you have the strata of authority and so forth. This is in my judgment a new layer and system of organized crime, not the same old Cosa Nostra that we have talked about, although I do not absolve them completely.

Obviously, the burden on the criminal justice system of the drug abuse cases—we had last year something like 9,000 people being arrested in Detroit for violating the drug laws, and I think if we are only talking about 40,000 or 50,000 arrests totally in the course of the year, we are talking about a very significant input into the system that is already heavily overburdened—the courts, the police, and so on. It is like courts dealing with the alcohol problem, which I think they should not be. We are plugging up that system, taking cars out of use, using up the courtrooms, and so on, for something that is not primarily a crime. It is a sickness.

Obviously, the criminal justice approach is not doing it. That does not mean we should abolish all the laws.

Obviously, the treatment of addicts is not doing it either. I think we have to move forward on both fronts. I think we can rely on funds from LEAA, the funds coming to improve the administration of justice. I am very pleased with the way LEAA is working.

I am chairman of the crime commission in our State. On the side, I may just say that the most important thing is not the money coming in, but believe me that is very important. But it is the cooperation that it is bringing, that we can get the key people in the administration of justice, which is as fragmented as Government is itself, sitting around the same table, talking with one another and going in the same direction.

Our programs, in our State, I find myself saying the same as other Governors, that I wish they were more adequate. I wish I could come here with the answer. Obviously, I do not. We are spending about $3 million now, we are asking for $7 million—Governor Milliken is—in next year's budget, which starts next week. Obviously, that is going to have to be increased rather dramatically.

Now, regarding the Federal help, and that is what we are here for, may I say that whatever is done ought to be a flexible, bloc-grant-type of program, by all means, like LEAA is, because that gives the State the experimentation, the flexibility, we can move more rapidly.

So many of these programs that are too inflexible, that are designed here are fine when they are designed, but by the time they get implemented down in those States, by that time, they are irrelevant. So I would plead for the bloc-grant approach.

I would plead that they be as flexible as possible, that the drug programs, whoever administers them in the State, be community based. We have to involve the community. I do not necessarily mean the political community, but the ethnic communities and so forth, so they can be part of it, so we can get that kind of responsibility we need within the various communities.

And lastly on the Federal help, what we are asking for is, I think I can say that if you gave me a check to take back to Governor Milliken for $50 million, we probably could not spend that next year because we are not tooled for it, we are not administratively ready for it, unless we threw it out the window. But by the same token—this happened in

LEAA funds—Congress says, you cannot handle it now, so we will give you all you can handle. But unless it is indicated to use what is coming, then we cannot gear up for it. And if each year you do that, we never get to the optimum point we should get to.

So I think whatever Congress does, they should indicate, if it is going to be substantial amounts of money, what that substantial amount of money is with sufficient commitment so we at the State level can begin to gear up for it.

I am not going to go into great detail on what we are doing in Michigan. It is somewhat similar to what the Governors have indicated. We are going more heavily on methadone. We are using our community mental health agencies and structure which is quite progressive, incidentally, in Michigan, to man some of the drug programs. We have for the first time a drug rehabilitation place which is designed for sentencing. We were woefully inadequate a couple of years ago in that the judges had no place to send those who were convicted either for drug abuse or were drug addicts and were convicted for something else.

That would conclude my remarks.

Chairman PEPPER. Governor, we thank you for your able statement today.

(Lieutenant Governor Brickley's prepared statement follows:)

[Exhibit No. 25]

PREPARED STATEMENT OF HON. JAMES H. BRICKLEY, LIEUTENANT GOVERNOR, STATE OF MICHIGAN

Thank you for the privilege of appearing before this committee. My name is James H. Brickley. I am Lieutenant Governor of the State of Michigan and am representing Gov. William G. Milliken.

Throughout my public life I have seen the impact of narcotic addiction on the quality of life in Michigan. As a Detroit city councilman, chief assistant prosecuting attorney of Wayne County and as U.S. attorney, I have witnessed first hand the role heroin addiction plays in the increase in crime in our urban centers.

As this committee is well aware, drug abuse is a massive and complex problem facing our Nation. Heroin addiction is only one aspect of a larger problem that encompasses youthful drug experimentation, chronic alcoholism, excessive use of amphetamines and barbiturates, and reliance on over-the-counter drugs. It is a problem whose solution will surely be as complex and difficult as the problem itself.

In my testimony today, I intend to limit myself to the problem of heroin and opiate addiction and the need for the treatment and rehabilitation services for narcotic addicts.

I would like to comment on three aspects of this program: First, the relationship of narcotic addition to crime in Michigan, particularly the impact of narcotic addition on our criminal justice system; second, the Mchigan approach to treatment and rehabilitation of narcotic addicts; and third, my suggestions for Federal assistance in providing rehabilitation treatment for narcotic addicts.

In discussing the relationship between narcotic addiction and crime, I exclude consideration of the crime of simple possession of narcotics, and essentially "victimless" crime, and will focus on crimes committed for the sake of financial gain such as robbery, larceny, burglary, shoplifting, and the illegal sale of narcotics for profit.

There is no evidence that addition as such induces crime, but the need to supply an expensive habit does. The irony is that the more successful we are in restricting the supply of heroin the higher the price, and the more expensive the drug is for those already addicted.

All we will accomplish if we attempt only to reduce the supply of heroin on the streets is to force the price up of the drugs. Unless such an attempt is coupled with effective means to lessen the demand for heroin by reducing the number of addicts crime will surely increase.

Scientific statistical information accurately indicating the relationship between crime and heroin addiction is nonexistent. The fact that heroin addiction is becoming more prevalent at the same time that general incidents of crime are increasing is not enough by itself to establish this relationship.

We do know that heroin arrests made by the Detroit Police Department between 1966 and 1970 have jumped 442 percent in the age bracket of 17–27. Some of this increase can be accounted for as a result of more intensified drug abuse enforcement.

As to the relationship between more drug addition and increased crime, a study by the Michigan Department of Corrections indicates that 40 percent of the entires into the State prison system were using various drugs during the period of the offense for which they were imprisoned. But most of the prisoners who composed the 40 percent were not being incarcerated for drug abuse violations.

Officials at the Wayne County Jail, which incarcerates Detroit prisoners prior to sentence, report that they have had as high as 40 percent of their jail population showing signs of drug addiction.

These figures, I think you will agree, reveal a relationship between addiction and an increase in general criminal activity.

It is estimated that there are between 10,000 to 20,000 drug addicts in the Detroit metropolitan area alone. The wide range between these figures indicates the difficulty in establishing a reliable figure.

The Metropolitan Detroit area is the center of heroin use and traffic in Michigan. However, other urban centers including Flint, Grant Rapids, Muskegon, Saginaw, and Pontiac also have severe and growing heroin problems.

There is one particularly disturbing aspect of the heroin traffic in Michigan that deserves mention. Evidence points to the existence of a major "Heroin War" in Detroit for control of the illegal narcotics market.

On June 14, in the city of Detroit, seven individuals were murdered in an alleged drug related crime. An eighth victim, believed to be the primary target of the murderers, died last Sunday before revealing any evidence regarding the crime. Detroit police officials estimate that these murders bring to about 50 the number of homicides in Detroit linked to the illegal traffic in narcotics.

There have been reports in Detroit of "a running territorial war among drug pushers." This kind of violence—assassination and murder—raises the spectre of the gangland wars of earlier decades and threatens the safety of every citizen.

We cannot sit by and allow this kind of criminal warfare which is motivated by the profits of heroin traffic to continue. While we must obviously halt these murders and curb the deaths resulting from drug use, our ultimate goal must be to prevent the kind of living death that individuals face as their lives are destroyed through heroin addiction.

Another aspect of the heroin traffic that should be considered is the tremendous burden placed on our criminal justice system. For more than 50 years the criminal justice system—our police, courts and corrections agencies—have been relied on by our society to deal with narcotics. Increasingly, we are learning that such reliance is inappropriate, ineffective and damaging to our entire criminal justice system.

More than 9,000 arrests for drug offenses in the city of Detroit in 1970 required thousands of hours of police time, the courts, prosecutors, jailers and correction and probation authorities. Despite this tremendous effort and allocation of limited resources we must conclude that the traditional responses of the criminal justice system (prison, jail, fines, probation) are generally ineffective in dealing with heroin addiction.

Those responsible for the administration of our criminal justice system have found they do not have the proper tools they need to realistically deal with offenders who are narcotic addicts. Sending every addict to prison is not an adequate solution, this would neither solve the problem nor help society. In many cases, it merely delays the return of the addict to the streets, to his habit and to the commission of crime to support that habit.

It would be an oversimplification, therefore, to say that law enforcement by itself is the answer to drug abuse, just as it would be equally simplistic to say that drug treatment and rehabilitation programs will alone solve the problem. An ultimate and effective solution will require greater efforts on both fronts if we are to reduce drug addiction and criminal activity.

As to our efforts in Michigan, in January of 1970 Governor Milliken established through a special message to the legislature, a special administrative unit in his office to develop and coordinate the State's part in a broad attack on drug abuse.

As a result of this effort, the State of Michigan has launched a comprehensive statewide drug abuse control program including education, treatment-rehabilitation, and enforcement. More than 3,000 heroin addicts are now in various treatment modalities in Michigan. Approximately 1,000 of these are in State-supported programs. We plan to expand this number to 2,000 by the end of fiscal 1971–72. During the current fiscal year the State is spending approximately $2.5 million on drug control programs. The request for the next fiscal year is more than $7 million.

The treatment-rehabilitation program in Michigan recognizes that:

(1) Drug dependence is an outgrowth of conditions which exist in the community and therefore each community must to some extent design and control its own program;

(2) No single modality of treatment will be successful for all drug-dependent persons, therefore we must support a variety of treatment approaches (including methadone maintenance, support of Syanon, drop-in and crisis centers) and over the coming years determine the proper modality for different types of problems;

(3) Because of the experimental nature of treatment for drug dependence the rate of failure will be high. We must be willing to take risks and learn from our failures as well as our successes. To facilitate this learning process, we plan to develop systems for constantly evaluating drug programs.

I believe the Federal Government can play an essential role in providing treatment and rehabilitation programs for heroin addicts throughout the country. As with so many other pressing problems facing our cities and our States, the demands for services are increasing while the available resources are growing more and more limited.

In providing Federal assistance for addict treatment and rehabilitation, I would like to make the following suggestions based on our experience in Michigan:

(1) A program of Federal funding which relies on traditional agencies and which includes ponderous Federal controls will not necessarily be productive.

(2) A treatment or rehabilitation program. to succeed, must include community participation. Community control should be encouraged, including the administration of the program by the community to be served. In proposing this, I recognize the high risk nature of this approach and caution that failures should be expected if we are to experiment with new and possibly more effective approaches.

(3) Because we presently lack answers, any federally assisted program should provide the maximum ability to innovate, and equally important, to eliminate programs that prove unworkable and ineffective. It would be a tragedy if funding and administration were so structured as to prevent the experimentation with new ideas or which perpetuated ineffective programs.

(4) Drug free alternatives should be encouraged. I believe it is important that alternative life styles, such as Synanon, be encouraged because they can have a significant impact on our culture and our approach to drugs. Treatment programs that rely on other drugs, e.g. methadone maintenance, can help reduce addition related crime, but they may, in the long run, reinforce the "chemical culture" aspect of our society that is itself a partial cause of narcotic addition. In Michigan, we are hoping to establish a working relationship between the strongly independent Synanon organization and State government whereby the State can assist Synanon without destroying its essential autonomy while retaining the necessary accountability for public funds. The success of this effort, I believe, may be a model for the Federal Government and for other States in assisting this unique community that has played such an important role in developing truly drug free alternatives to narcotic addition.

(5) I believe the funding mechanism for narcotic treatment and rehabilitation programs should be based on the revenue sharing or bloc grant approach. Over the long run, drug abuse treatment and rehabilitation should be incorporated into other community health and social services available to our citizens. To create a separate funding mechanism, bureacracy, and constituency for drug abuse funds could reduce the effectiveness of Federal assistance. In addition, the particular circumstances of each State differ widely and maximum leeway should be given to develop specialized approaches. Because of the resources now being applied by the States to this and other social problems, I believe State government should be the vehicle for administering these funds. The success in Michigan of the allocation of crime control funds is evidence that States can work productively with cities, counties, and other units of government in allocating funds for the greatest impact.

(6) Finally, I believe that alternatives within the criminal justice system should be provided for narcotic addicts. An addict, like any other individual, should be responsible for his criminal conduct. But our society, through the agencies of its criminal justice system, must be prepared to provide effective treatment and rehabilitation opportunities. Such opportunities are rarely available now.

I appreciate this opportunity to present these views on behalf of Governor Milliken and myself. As you continue your deliberations, I would be happy to supply you with any additional information on the Michigan program that may be of assistance to you.

Chairman PEPPER. Governor Shapp, do you have anything you would like to add to your statement before I ask the committee if they have any questions?

Governor SHAPP. I would like to make one additional point that has nothing to do with Pennsylvania, but it does have something to do with my urging the Federal Government to use all of its world powers to stop the international traffic in drugs. Granted, Lieutenant Governor Brickley just mentioned, by itself, this only solves one part of the problem. But for the most part, as I understand it, the nations of the world that grow the flowers from which the drugs are made are nations that are greatly dependent upon the financial aid and the support of the United States. It is my understanding that at the present time in Turkey, we are following a program of paying them money not to plant poppies, which is reminiscent of the old days in this country of passing out money to keep crops from being planted. It seems to me we could come up with a more sensible program of simply telling that nation that if they want to continue with the aid they are getting, they just have to stop what they are doing and start burning those fields rather than putting money out to plant new fields. If we are going to solve the problem, we have to come up with realistic approaches to eliminating the traffic on an international basis.

What can be done? I think the people in power have greater knowledge than I have, but I do not think that they are using practical programs at this moment.

Chairman PEPPER. Governor Carter, would you like to add anything to your previous statement?

Governor CARTER. I would like to back up something that Lieutenant Governor Brickley said. That is, the method of dispensing the funds that will be forthcoming from the Federal Government. I particularly like the LEAA approach. This has been very effective in Georgia. It has let our local governments have complete input into it. We have 19 planning commissions in Georgia. We have need for the programs that the 19 planning commissions are requiring. The local governments cooperate with one another, with the State agency aware of all those problems. This could well be a pattern for the drug addiction program.

I know this committee is primarily interested in seeking information, but it will be very helpful to use as Governors to have some delineation or listing of Federal agencies which are now equipped financially and through authorization to help us finance this program. The Veterans' Administration may have funds available that could be channeled into this program. The Armed Services, I am sure, do. The OEO certainly has funds available. Maybe the Public Health Service.

But we need immediate help or some indication of what immediate help can be made available to us so we can accentuate and reemphasize our own efforts on this problem and make plans in the long run for the future after legislation is passed.

Chairman PEPPER. Thank you very much, Governor.

Mr. Mann, do you have any questions?

Mr. MANN. Governor Carter, I am very much interested in your military experience to date and today. Did the authorities at the Pentagon indicate that they felt they were under any legal disability from being able to furnish you names of heroin addicts being discharged from the service?

Governor CARTER. The response that we received, I think Under Secretary Kelly was there at the time—he could only stay briefly—was that although they would like to do it, it was their opinion that they would be prevented from doing it because there was an argument about whether this information ought to be secret or made available. They did not say where the restriction came from, either from the Secretary of Defense or the Congress; I do not know. But this is something that would be very important to use to alleviate.

Mr. MANN. It certainly would. They did not mention medical privilege?

Governor CARTER. No, because I think they do make available to State agencies contagious disease information when a serviceman comes back to his own commuity.

Mr. MANN. I would hate to see us get into a program for the financing of drug programs on the impact aid theory that we do in education. But it would appear to be remotely appropriate.

I believe that is all I have, Mr. Chairman.

Chairman PEPPER. Mr. Winn?

Mr. WINN. Thank you, Mr. Chairman.

I want to thank you gentlemen for taking the time from your very busy schedules to share your views with us. I believe it was Governor Carter who mentioned the problems in the service. I had an interesting conversation with General Davidson yesterday. He has been in Vietnam for quite some time and is now going to take over the European troops. He is concerned about the problem of drugs in the service, but made a good point. They are getting their personnel in the United States, and these are young people who, in most cases, have already been on drugs. The percentage is high of those who have already at least smoked pot, and many are addicted to pot, some on hard drugs. And then when they go into that area, particularly Vietnam, the availability of heroin and the byproducts of heroin add to the problem. It is partially a military problem of course, but also they are getting the problem group from the United States, the recruits. So I think maybe we are placing too much blame on the military.

But at the same time, they are well aware of the problem. I think maybe your conversation makes all of us aware that we are going to have to talk to some of the people in the Pentagon and point out to them that they are going to have to do more in new programs to take care of that.

Yes, sir?

Governor CARTER. I certainly recognize that part of the problem originates in civilian life with draftees and otherwise. Of course, I do want to say that what we would like to have is a working relationship with the miiltary to share their doctors, their facilities. I am strongly aware, though, that the Department of Defense is not contemplating at the present time any responsibility for a discharged veteran who is an addict. The only exception to this would be very intangible remarks about potential Veteran's Administration services.

I think that this is a mistake. They should give us the names, they should participate in every aggressive way possible and not seek excuses for not participating.

I am not sure at what level within the Department of Defense General Tabor and Mr. Hobson are. This meeting with me was arranged by the Secretary of Defense. I asked the gentlemen assembled in the room if any of them had ever had any experience in the treatment of addicts or the supervision of a treatment program for addicts and they said no, but they understood that some of the people in the Air Force had had experience in this field.

I would hope that the military would take a more pragmatic and aggressive approach and incorporate some people within their program who had experience in the treatment of addicts. I was extremely disappointed in their attitude this morning.

Mr. WINN. I share your concern about their attitude and I think they are relatively new in this field.

Governor CARTER. They are.

Mr. WINN. Their experience level is negligible as far as past histories are concerned. They are, I am sure, looking forward to a working relationship with the Veterans' Administration and the VA hospitals. I am sure all of us will do all we can to share this concern with you.

Governor SHAPP. Mr. Winn, just one comment on this.

It is rather difficult for me to comprehend how the military can say that they are getting a good share of their addicts from civilian life when, after all, each one of the men and women going into the Armed Forces undergo a complete medical checkup at the time they come into service. It would seem to me that either the checkup they are getting is improper and done in a very sloppy way—and having gone through the process myself, I can understand this may be one of the reasons for it. But I just can't conceive that a large percentage, or any significant percentage of the addicts that they have in the Army came through from civilian life without being detected at the very beginning.

Mr. WINN. Not being a medical doctor and not knowing, either, the total physical examination, I doubt that until recently, or if at all, even today, that they are looking for drug abusers. I doubt if they are during a urinalysis, looking for the results or the possibility of the hard drugs.

Governor CARTER. Mr. Chairman, they did inform us that they are now conducting a urinalysis on every veteran who is being discharged from the Vietnam area. But this is the limit of their urinalysis so far.

Mr. WINN. That is on discharge and Governor Shapp was talking about those going into the service.

Governor CARTER. They are beginning this, that Governor Shapp referred to.

I think one thing that impressed me, too, was their dependence on the Veterans' Administration and institutional care for drug addicts. Our own experience in Georgia, and I think this is shared nationwide by those involved in the problem, is that only 2 percent of the addicts ought to be hospitalized. The other 98 percent are those we are concerned with. I think the Veterans' Administration has habitually concerned itself with institutional care.

Mr. WINN. Well, yes; but they are now under orders, as I understand it, to set up and set aside part of their facilities for rehabilitation. I think they all have a lot to learn, like all of us who are concerned about drugs. I just do not want to be too critical of any one phase, because we all ought to look in the mirror a little bit, as one of the Governors said.

Governor Shapp, you mentioned the "no-no" philosophy in talking about television and educational TV and starting with the very young. You said at the kindergarten age and prekindergarten age, an educational program showing the effects of drug and drug abuses. I am not a sociologist and I partially agree with you, but I think this would have to be very well done and very carefully done. What do we have now except a high percentage of the youth in America who are rebelling against the so-called establishment and possibly, this would be a training ground for them to rebel against the so-called establishment if it were not very well done? Do you see my point?

Governor SHAPP. I agree with you completely, but we start traffic training about the time a child can walk and instinctively, they grow up to look both ways except, of course, when maybe a ball is thrown into the street and they forget. But I think there are habits that can be handled in this fashion.

Let me throw the reverse at you, though, on television. When little kids, particularly, see these commercials on television where a woman or a man has terrible pains in the shoulder and just take one pills and then everbody is smiling and the pain is gone. Or when they find that all you have to do is drink this and any discomfort you have has disappeared. I think we are formulating the wrong impressions through this quick, easy cure of all our pains and ills by taking a pill or a powder.

I am not a sociologist, either, but I have a feeling that we are ingraining in the minds of a lot of our young people that there are simple ways out of our problems and it makes it easier for them to be influenced by somebody who is peddling the drug cult.

Mr. WINN. Mr. Chairman, I only want to make one more statement. I know that there have been several national conferences on drug abuse, but it is my understanding that they have been basically held by the medical societies, by AMA and people in the medical field. Certainly we need their advice. At the same time, I think that these gentlemen are telling us what we already know, that we have to work together and I think there should be a national conference held on drug abuse which would get into the problems, the various problems, that the States have—the military side, some of the other problems that each State might have—in connection and working with the Federal programs that are now available, and I think if the input, if these Governors and their staffs and their experts could talk to some of the experts from the Federal level, we would have a change of direction in the future that we so badly need. I, for one, would urge this committee to set up a conference where we would have these gentlemen and their experts come in, not only from the medical field but even from the legal field.

Thank you.

Chairman Pepper. Thank you very much.

Mr. Murphy?

Mr. Murphy. Mr. Chairman, I have just come in. I do not know what ground has been covered. But there was one point the Governor of Georgia made in his presentation. I would like to address my question to the Governor from Georgia.

That was, sir, with regard to the Army commanders at these various posts within your State. Did they ascribe any reasons to this refusal of identification of addicts?

Governor Carter. That was covered earlier, and they did not. They told me that they personally would like to see this done—General Tabor was speaking and Mr. Hobson, and I think Kelly, were present at the time. They were high officials in the Department of Defense. But they said they would probably be prevented from it because of the reluctance to divulge this type of information, which was considered to be confidential or secret. I did not pursue the question, unfortunately, to determine whether that prohibition came from a law or from the attitude of Congress or from the attitude or directives from the Secretary of Defense.

Mr. Murphy. Well, Governor, you might be interested in knowing that Representative Steele and myself, along with over a hundred cosponsors, have introduced legislation here in the Congress which will make it mandatory upon the Army, the Secretary of Defense and the various Secretaries of branches of the service, to identify these addicts upon their return to the United States and also while they are serving in the United States, and turn this information over to the White House on this new task force program.

Governor Carter. Would this include information about this addict when he is discharged?

Mr. Murphy. That is correct. In other words, presently, the Armed Services have no test, simply a urinalysis test. They have no requirement that the GI leaving the service has to take this. It is one of the simplest ways of identifying an addict. I think the cost ascribed to the services was $1.80 a test. I think the President has implemented this now and he is making the test mandatory, and I applaud him for those efforts.

Chairman Pepper. I know you have to leave. Just two or three things quickly.

Let me ask each of you gentlemen, if I may, starting with Governor Carter, does your State have any law that authorizes you to require one involuntarily to take treatment for heroin addiction at any stage, either after arrest or the like?

Governor Carter. We passed a law this year that permits a judge as a part of a probationary sentence to require treatment for addiction. They have the experience in Georgia, and I think in Washington and

New York and other places that the number of voluntary addicts who come forward for addiction have more than flooded, exhausted the resources of the treatment centers.

Chairman PEPPER. I suppose that sort of legislation would almost have to be at the State level. It probably would not be in the proper scope of the Federal Government, except maybe with respect to armed services.

Governor CARTER. We now have only three methadone centers in Georgia, all three of which are in Atlanta. I understand there are more than twice as many addicts who come forward and say help me as can be handled under the present system because of lack of funds and lack of personnel.

Chairman PEPPER. Governor Shapp?

Governor SHAPP. We have no such law on the books now. We have a bill before our legislature to set up this whole program for drug control and rehabilitation and this is a feature of our new legislation. However, we have a couple of problems, even if this legislation passes.

First, we have no hospitals in the State and no facilities in the State where we can start this type of treatment and we will have to start from scratch in developing this.

Second, there is no way at this moment that we know to determine the attitude of the addicts themselves toward this treatment and if you set up a program to treat somebody and try to rehabilitate hem and you do not know whether they are going to accept the treatment this way, you may not have an effective program at all. So we are starting to get our feet wet in this program and I think we have a lot to learn. We need all the help we can get. We are going to move in the direction of taking care of these addicts and trying to force rehabilitation. But just how far it will go and how successful this program will be, we cannot tell at this time.

Lieutenant Governor BRICKLEY. We do have an old statute in Michigan which provides for involuntary commitment through probate court of a person addicted. It has been rarely used for that purpose. It requires a confinement at a State hospital. I suspect it has been rarely used because we do not have the facilities there. You usually do not have a petitioning party and we are so busy with those we can confine through the criminal process, either through the Federal Narcotic Addict Rehabilitation Act or through an alternative to sentencing, which is usually sufficient. It has hardly ever been used for that purpose, but it is there.

Chairman PEPPER. While you are speaking, Lieutenant Governor Brickley, would you tell us whether or not the Detroit police department has said that they had found by the use of methadone a reduction in the incidence of crime?

Lieutenant Governor BRICKLEY. I was just going to volunteer that. I am sorry I did not say it in my opening statement. The methadone treatment program really started in the last 6 months in Detroit and in May, for the first time in my memory, they have had a reduction in the incidence of crime, particularly those crimes, rape, robbery, burglary, and larceny from the person. I think there are some conclusions you can draw from that.

Governor CARTER. One more item that I think might be of interest to this committee: About 3 months ago, I met at night for supper with all of the top officials in the Federal Government, the FBI, Narcotics Control Agency, my director of State patrol and the Georgia Bureau of Investigation, the police chief of Atlanta and DeKalb County and the district attorney in that area, to talk to them about the criminal prosecution of those indulging in the distribution of narcotics. At that time, my orientation was mainly found attacking the problem through the courts.

They pointed out a very serious problem to them as law enforcement officers. There were 15 drug distributors known to them by name whom they were observing. They had through a laborious process prepared testimony and evidence against one particular distributor of narcotics. He had been taken to Federal court and released on bond. In August of last year, he violated his bond requirements and was caught again bringing heroin into Georgia from Chicago. Immediately, he was released on bond again, on $1,500, and he is now distributing drugs in Georgia at the present time. This is a Federal court, over which no Governor, of course, has control or would want control. But this was an extremely discouraging incident to the people who have devoted hundreds of man-hours to bringing this person to justice.

I think if some degree of publicity, through the Attorney General or otherwise, could be brought to the Federal court judges about the seriousness of this type of criminal, I want them not to have an overly severe sentence, of course, but it is very discouraging to local and State law enforcement officers to bring a person to justice and then have him immediately released on a very low bond.

Chairman PEPPER. Governor, this committee is very much aware of that problem. It first came to our attention in hearings that we had in New York, where the representatives of the customs department and the Bureau of Narcotics and Dangerous Drugs were telling the same story about how they had spent a lot of money and a lot of time catching somebody and then a Federal judge would give him a bond. Even if they posted a $100,000 bond, one of these international gangsters would skip the country and quarry had fled.

This committee pointed that out in our recommendations to the House at the end of last year and we are considering legislation to rectify this problem.

Mr. Winn?

Mr. WINN. I just wanted to point out, Mr. Chairman, that I believe Chief Justice Burger has sent out some instructions and made some comments along this same line and I believe that they are aware of it. But I believe with Governor Carter that additional publicity should be sought at this time. And this committee has done everything it can.

Mr. MURPHY. Mr. Chairman, along those lines, I suppose we all have our stories. One of the stories we highlight in our report on the world heroin problem is about an ex-GI who was indicted in New York and is now presently on a quarter of a million dollar bond. He is now back in Bangkok, Thailand, where he operates one of these laboratories in a bar where he reduces opium to a heroin base and then distributes it to our GIs in Vietnam. He has a valid U.S. passport. This is another story in a long line of abuses.

Chairman PEPPER. Gentlemen, I would just like to call attention to this. I have just inquired of the staff and I find that the budget request for the LEAA for 1972 is $689 million. Now, this committee started a couple of years ago to try to get more money for LEAA, to help the States with their crime problems. It was some $200-odd million when we shocked a good many people by going before the appropriate committee and saying it ought to be $1 billion a year, at least $1 billion a year, if we are going to do any good to help the States. Well, fortunately, the Congress finally authorized $750 million last year, $1 billion now, and $1.2 billion the third year.

The reason I brought this up is that the testimony that we have heard from our distinguished witnesses today is that anywhere from 40 to 60 percent of the crime in this country is directly related to narcotics. And here we are, proposing to authorize $105 million for treatment and rehabilitation and yet dealing with what looks like the more probable cause of crime, we are proposing to spend $700 million, but that is not for treatment and rehabilitation particularly. So it looks like what we have to do is shock the conscience of the Congress and the country to an awareness that we are dealing with crime. Some people ask this committee, you all keep talking about drugs; we thought you were a crime committee. Our opinion is that the quickest and the cheapest way that we can reduce crime very materially in this country is through an effective drug program, programs to help you Governors and other officials meet the menace of this problem.

The Governor of Georgia spoke about the number of people dying. I live in Miami, Dade County, prior to 1966, we did not have any reported deaths from heroin. Last year we had 31 and this year, we are going to have 54, just in my county. In New York, over 1,100 people a year die, now, at the current rate.

In the New York courts, the chief enforcement officer told us that 48 percent of the cases in New York County and Bronx County, two of the main counties in the New York area, 48 percent of the cases dealt with narcotics traffic and another 25 percent with crimes incident to narcotics traffic. These prosecuting officials said that if they did not accept voluntary pleas on the best terms they could get, the court systems would absolutely bog down.

This just emphasizes how drug abuse is directly related to the problem of crime.

Gentlemen, we welcome anything further you might care to say. You have been most indulgent.

Did you have anything else to say, Governor?

Governor SHAPP. I just wanted to add one thing to what Lieutenant Governor Brickley said before. If, in your planning to aid the States and local governments in this whole process of coming to grips with this drug problem, you would follow the same procedures you do in LEAA, it would be very helpful. As I indicated before, we estimate that about $45 million is about what we can shoot for in the next couple of years reasonably. We have to build up to it. So we have allocated $20 million in our budgets of various departments. This is for tooling. Unless we know that we are going to have the funds to expand the program to cope with the real problem, then we are unable really to get the staff to implement the programs to build up to do the things on sufficient scale to make a dent in this problem.

So I can only urge that you follow the advice that he gave just a moment ago and as you plan this thing, plan it for the future, because if New York is at $188 million right now, sure, their problem is perhaps greater than some of the other States. But they do not have sufficient funds to come to grips with it. I think you can project out from what they are doing, or project our estimates of $20 million this year, $45 million next year, to work on this problem. I think if you give us a program of that sort on a financial basis that is programed for the future, then we can gear to this and have much more effective programs than we will have on any other basis.

Chairman PEPPER. Governor, your statement is obviously a very reasonable and articulate one. In my own opinion, we should appropriate at least $500 million to be available. The President holds up other money that the Congress appropriates when he does not think it appropriate to spend it. He does not give it to anybody who could not use it wisely. But we ought to make at least $500 million available in fiscal 1972 and ask the States to give us, within 60 days or 45 days, a good program that you think you could use this money on effectively, and then we would begin to get somewhere and we would notice a decrease in the problem.

Governors, we want to thank you very much for your kindness in coming. You have been most helpful to us.

The committee will recess until 2 o'clock, when we will hear Dr. John Kramer.

(Whereupon, at 1:05 p.m., the committee was recessed until 2 p.m. of the same day.)

(The following letters were subsequently received from the officials of various cities in response to a request by the committee for their views:)

[Exhibit No. 26(a)]

CITY OF BOSTON,
OFFICE OF THE MAYOR,
City Hall, Boston, June 9, 1971.

HON. CLAUDE PEPPER,
Chairman, House Select Committee on Crime,
U.S. House of Representatives, Washington, D.C.

DEAR CONGRESSMAN: I wish to thank you and the members of your committee for requesting my views on the needs of the Nation's major cities in dealing with the problem of drug addiction.

Drug abuse and drug addiction have become problems of great concern in the city of Boston. At the present time there are an estimated 10,000 users of heroin among Boston's 650,000 residents. Although there are no generally accepted estimates of the number of people who abuse other narcotics and dangerous drugs, the testimony of educators, community leaders, and youth workers suggests that illicit drug use—particularly by high school and junior high school age young people—is widespread and constantly increasing. Not only is one Bostonian out of every 65 a heroin addict, but the number of addicts has risen at an epidemic rate—a rate possibly as high as 50 percent each year.

To meet this epidemic, in March 1970, Boston established a comprehensive drug abuse control program. Since that time, we have opened two out-patient methadone clinics, established an in-patient day-care and detoxification center, initiated a 24-hour hotline in the accident floor of the city's general hospital to respond to drug-related crises, and provided funding and other assistance to several community-based self-help rehabilitation programs. We have tripled the size of the police department's drug control unit, and with the generous assistance of the Federal Bureau of Narcotics and Dangerous Drugs, provided all officers with specialized training. Over 1,250 public and parochial school teachers in Boston have participated in drug abuse education symposia and training programs. In many neighborhoods, community drug action committees have harnessed the energy of private citizens in local fund-raising and volunteer activity in support of community-based treatment and preventive education.

Yet, in spite of these efforts, there continues to be a tragic disparity between services and the rapidly growing need. Between 1966 and 1969, 1,550 drug addicts voluntarily applied for treatment at a small, State-funded out-patient clinic located in Boston. Since the beginning of 1970, when we appropriated city funds for that clinic, quadrupled the size of its staff, improved its method of operation, and transferred it to the city's general hospital, an additional 1,567 heroin addicts have requested help. The city of Boston's treatment facilities currently have an active caseload of 650 patients, representing capacity operation. Treatment is available to approximately 350 additional persons through a multiplicity of small programs—university and community hospital-based and self-help programs—which are primarily funded by the Massachusetts Department of Mental Health. An OEO-funded treatment program designed to serve three housing projects has not yet begun active operation. An NIMH-funded drug abuse rehabilitation program which was approved in July 1969 did not begin active operation until February 1971. The city of Boston's treatment facilities receive no Federal support at the present time, although they treat the majority of the addict patients in the city. One hundred fifty new patients apply for treatment at those facilities each month. And the combined city-State-Federal resources provide the opportunity for help to only 1,000 of Boston's 10,000 heroin users—10 percent of the people in need.

At the same time that Boston is seeking to assist its addict population, we are constantly confronted with the problems of addicts from outside the city desperaely seeking help. One out of every five persons applying to the city's treatment facilities is a non-Bostonian. Because of the enormous need of our own residents, in June 1970, we began a residency requirement in the city's treatment facilities. Unhappily, we refuse assistance to non-Bostonians, sending them back to their own communities most of which have no treatment resources available, to continue their lives of addiction and crime. That is not a pleasant task, but we have no other choice. With no financial assistance from the Federal Government, insufficient funding from the State, Boston—which gets its resources solely from the property tax in a city where over 50 percent of the property is tax-exempt—is struggling to pay for the vast majority of patients now in treatment, and to provide services for hundreds more who want to be cured.

My recommendations to Congress are these:

(1) Increase the amount of Federal support available to our Nation's major cities. I am greatly dismayed that while over 850 cities, States, and private agencies applied for community drug abuse prevention grants, under the Drug Abuse Education Act of 1970, only 46 could be awarded since the administration had appropriated only $6 million of the congressionally approved authorization of $20 million for fiscal 1971. I am equally dismayed by the administration's failure to fully fund the Comprehensive Drug Treatment and Rehabilitation Act of 1970. A 30 percent effort will not solve the crisis of drug abuse which this Nation faces.

(2) Increase the amount of Federal support for services. Federal support is now generally tied to research projects rather than on-going programs of treatment, rehabilitation, and education. We agree that such programs should be carefully evaluated, but the delivery of services should receive high priority for Federal support. It will do us no good to know 5 years from now how we could have met this challenge.

(3) Do not treat this problem through an emphasis on any single approach. Drug abuse and drug addiction are complex problems which are not susceptible to simple solutions. The city of Boston's drug abuse control program which I have outlined above emphasizes a coordinated effort in treatment, law enforcement, education, and community action. I strongly believe that such a comprehensive approach is essential.

I am proud of the city of Boston's program to combat drug abuse. I am proud of the many Boston citizens who give freely of their money and time to work in their own neighborhoods. I am proud of the willingness of many private agencies to work closely with public agencies. I am proud of this city's health professionals, educators, law enforcement officers, community leaders, and young people who are struggling to communicate with each other and work together to cope with this problem.

It is too soon to measure the effectiveness of Boston's efforts. Although we cannot state with scientific accuracy the impact of our programs, we do see encouraging signs. We can point to persons who have overcome their drug addiction and many others attempting to do so. We see, with pride, men who led a life of crime now working and contributing to the community. We are fully cognizant, however, of the effort which we must continue to put forth. Boston has not yet fully experienced the impact of the many drug-addicted young men who will be discharged from military service. We cannot fail them. I hope and pray that we will have the resources to aid them.

Our Nation has many strengths in its people and in its institutions. We do have the capacity to successfully confront the drug abuse crisis which we face. The House Select Committee on Crime has held hearings throughout the United States. You, members of the committee, should be among the most knowledgeable in the Nation regarding the extent of the problem and the enormous need for action. I trust that you will provide the necessary means and leadership for such action.

Sincerely,

KEVIN H. WHITE, *Mayor.*

(A response from Richard L. Krabach, city manager, city of Cincinnati, Ohio, was retained in the committee files.)

[Exhibit No. 26(b)]

CITY OF DETROIT,
June 15, 1971.

CLAUDE PEPPER,
Chairman, House Select Committee on Crime, U.S. House of Representatives, Washington, D.C.

DEAR REPRESENTATIVE PEPPER: The city of Detroit shares with other urban areas throughout the Nation, the problems created by drug addiction. From the standpoint of law enforcement, drug related arrests during the first months of 1971 project a total of 9,137 arrests for the year, or an increase of 163 percent over 1969.

The estimates of drug dependent individuals are many and varied, with estimates well in excess of 20,000 addicts. Further, the total daily amount of heroin purchases in the city may approximate $700,000, which may necessitate $2 million of retail valued merchandise.

The numbers of people addicted to drugs and the amount of crime related to supporting drug addiction has been growing at an alarming rate over the last few years. The major providers of service have long recognized their inability to provide treatment if services are predicated on the precious tax dollars large urban cities are able to allocate.

The financial crises confronting Detroit is the same burdensome problem of declining revenue sources as expressed by every mayor of other cities. Treatment and prevention of drug abuse is a very costly service which cannot be adequately provided by current city budgets.

The city of Detroit attempts to provide comprehensive treatment, prevention, information, and educational services to its estimated 20,000 heroin addicts under a $2,000,000 budget for the fiscal year 1971–72. Federal sources under the National Institutes of Mental Health have contributed $500,000 for our Model Cities drug treatment program, which serves a populace of 104,000 residents. The Office of Economic Opportunity has contributed approximately $500,000 for our program of drug treatment, which is conducted by the Mayor's Committee for Human Resources Development. The Law Enforcement Assistance Act recently granted $250,000 to the Health Department to establish a treatment program. An analysis of Federal and State allocations indicates a sum total of $1.3 million, which is well below the financial commitment by the city.

The absence of Federal Revenue sharing and direct grants to our city to permit the development and establishment of a comprehensive drug abuse treatment program will only compound the problem. We cannot delay action on the Nation's number one health problem any longer.

The basic needs for the implementation of a viable citywide program would necessitate the following rehabilitation services:

(a) Crisis centers.
(b) Central laboratory.
(c) Court programs.
(d) Research.

(e) Therapeutic communities.
(f) Hospital based treatment programs.
(g) Educational centers.
(h) Acute detoxification centers.
(i) Computer services.
(j) Central registry.

It is my intention to develop a minimum of 26 centers to include a variety of modalities with special attention to prevention as it pertains to the adolescent.

In the event the Federal Government continues to play a passive role with respect to our monetary crises, the numbers of heroin addicts in Detroit could approximate 40,000 in a year.

Gentlemen, our services to the citizens of Detroit have been drastically curtailed. The failure to provide medical/social services for drug dependency will become unmanageable without adequate Federal Revenue.

Sincerely,

ROMAN S. GRIBBS, *Mayor.*

[Exhibit No. 26(c)]

STATEMENT OF GEORGE A. ATHANSON, MAYOR, HARTFORD, CONN.

Hartford, Conn. is a geographically small city (18.4 square miles) in central Connecticut, surrounded by relatively affluent suburban towns. The city has a population of 158,000 including about 44,000 black people and 20,000 Puerto Ricans. The capital region, 30 town area, of which Hartford is the hub, has a population of over one-half million.

Conservative estimates of hard drug users in Hartford suggests about 2,000 to 3,000 heroin addicts. About one-half of this number are addicted to substantial amounts of the drug requiring expenditures of $50 to $100 per day.

The crime rates, especially breaking and entering, shoplifting, burglary, and mugging are increasing due in large part to drug dependency. Drug-related arrests by the police department are ranging in the neighborhood of one thousand annually. In addition to the major heroin problem, there is a large but indeterminate amount of usage of a variety of other drugs, both hard and soft. In the city, cocaine, alcohol and glue seem to predominate. In suburban areas, there is a wide use of marihuana, amphetamines, barbiturates, and hallucinogens. Further, and even more alarming, is the recent phenomenon of the "psychedelic delicatessen". This phrase aptly describes the way drug and alcohol users indiscriminately mix all varieties of both. Needless to say, the results of this practice are fatal.

At a recent meeting of the chief executives of the major drug treatment programs, certain recent trends or changes in drug usage were noted. All agencies have noted a trend toward younger persons using hard narcotics—children in the range of 12 years of age are being seen or referred to some programs for care. The youngest seen was age 9. This is also attested to by the increase in youth drug offenders being sent to the juvenile detention centers in Meriden and Cheshire, Conn., as well as the younger age group in the State jail in Hartford. The director of one of Hartford's methadone clinics estimates that nearly 100 drug users between the ages of 12 and 15 have been seen by his facility.

Another trend, noted by all agencies, was toward increasing use of drug combinations by young people. Particular attention was called to the use of heroin and alcohol (Boone's Farm Wine and Malt Duck) by urban young people experimenting with drugs. The sight of children in the streets "stoned" during regular school hours was noted. A separate new group of addicts, the Vietnam war veteran, has recently appeared in Hartford. During the past year, 39 veterans addicted to heroin approached one agency. Neither of the two Veterans' Administration hopsitals (Newington and West Haven) has a drug service program.

A variety of drug treatment programs has sprung up in an attempt to serve the needs of the community. Some of these programs were originally sponsored by parents who had lost children to the drug culture.

The most comprehensive programs for drug abuse are provided by the Alcohol and Drug Dependence Division of the Connecticut State Department of Mental Health. With the assistance of a major grant from the National Institute of Mental Health, they currently offer the following programs:

(1) Outpatient clinic care including group therapy, counseling, and vocational rehabilitation.

(2) Inpatient care in the Blue Hills Hospital including detoxification, a variety of therapies, and long term followup.

(3) Long term residential self-help programs at Valiance House on the grounds of the Norwich State Hospital and the Dartec House on the grounds of the Undercliff Hospital in Meriden.

(4) A methadone maintenance program started with inpatient care and long term outpatient maintenance. This program includes counseling and vocational training and assistance. This program is building toward 150 clients, and is operated jointly with the health department of the city of Hartford.

(5) The division operates a drug line and general information and counseling program for addicts and their relatives.

The Alcohol Council of Greater Hartford operates an elaborate drug information center with a large reference film library and a computer tie-in with the National Drug Information Center in Washington. This agency is currently making some effort to coordinate drug programs within the region.

A criminal and social justice coordinating committee, sponsored by the community council and the chamber of commerce, is currently operating a second major methadone program. The program is rapidly building toward 300 clients, entirely on an out-patient basis. There are centers for the program in both north and south Hartford, and people in the Hartford State Jail may be enrolled in the program before being released from jail to continue thereafter.

Each of the city's four general hospitals offers limited service for the addict, both detoxification and care for urgent medical, surgical or psychiatric complications of drug abuse. In addition, an increasing number of private therapists are involved and concerned with the drug problem and approaches to treatment. It is difficult, even impossible, to quantify the latter types of services. One specific program is one of the four hospitals is a 30-day residential treatment program for adolescent drug abusers under the auspices of the University of Connecticut Medical School—McCook Hospital Division. This program has had indifferent success, but is one of the few devoted to the under-16 drug user. There is a current attempt to expand this program to include a long-term residential treatment center.

A model cities program of the city administration is beginning to devote itself to the drug abuse problem by establishing two youth centers for education, guidance, counseling, and referral for teenagers and their parents.

The community renewal team, an OEO Agency, likewise is devoting personnel time to drug advice, counseling and referral service. A completely nongovernmental program, ROOTS, Inc., has established itself as a center where troubled youth may find peer-group counseling and assistance.

While the city of Hartford and the State of Connecticut have diligently dealt with the drug problems confronting them, there are still a great many needs to be met. Most urgent is the need for greater youth orientation in our rehabilitation and treatment programs. Specifically:

(1) Because the problems of drug addiction are more than just physical (there are also grave psychological and environmental factors as well), and because it is a process rather than a disease, there is great need for youth rehabilitation treatment centers. The function of these centers would be to allow the young drug-dependent person, age 16 or under, to receive treatment for a period of 6 months to a year. This amount of time is absolutely essential if we are going to cure completely a young adult's addiction problems. In order to serve the area sufficiently, an initial residential treatment center with a capacity of at least 50 is necessary. Estimated yearly cost of this facility would be $250,000.

(2) Realizing that the 16-and-under age group is the group that most needs to be communicated with, both in terms of treatment and drug education, it is essential that we institute massive drug awareness programs for education directed to this group. The aim of this program must be twofold: (*a*) To change the image of drug usage; and (*b*) to make drug addicts realize that there are agencies ready and willing to help them.

(*a*) In some areas where drug abuse is most prevalent, the ideas concerning drugs are often romanticized. As has been true in the past with gamblers and organized crime, some of the younger (nondrug using) children look up to the addict because of what (they think) he represents. This often encourages experimentation. Through massive drug education, the point must be driven home that narcotics use is not desirable and is not to be admired or copied.

(*b*) In an effort to make the drug-dependent person more aware of what help is available to him, the mass media and the public education system must be utilized. Through these campaigns people who are not on drugs must learn to avoid them, and those who are addicted must learn where they can be helped.

Presently, drug education in the public schools is inadequate: It is not at all unusual for students to be more knowledgeable about drugs than their school nurses and instructors. To initiate a more sensitive and meaningful drug education program, covering the city's 32 schools, would require an initial staff of 10 counselors and would cost an estimated $150,000.

Another need of the city exemplifies a fundamental problem presently confronting the entire Nation; that our so-called rehabilitation centers, our jails and youth homes, increase rather than decrease their inmates' problems. For example, it is generally agreed that the two State rehabilitation centers, Meriden and Cheshire, which house juvenile court referred youth, only compound the problems of a young addict sent there. Necessarily, we must have alternatives to present youth facilities. The juvenile courts must not be doing an addict a disservice when they sentence him to one of these centers. Therefore, the need for youth drug rehabilitation treatment centers, already discussed, is again underscored. Also along the lines of the judicial system and youth drug addiction, a stronger, more vigilant relationship must be encouraged between probation officers and those young drug users who receive suspended sentences. In this way, hopefully, the second-offender problem can be alleviated. This type of relationship requires a vast increase in the numbers of parole personnel

Another need essential to the city's drug rehabilitation and treatment efforts is for more places in the methadone treatment program. Presently there are 450 available places for methadone treatment in the city, administered by two separate agencies, the Hartford Dispensary and the Blue Hills Hospital. Those who run them estimate that there are 1,000 who would use the treatment if it were available. The Hartford Dispensary presently has space for 300 at an operating cost of $400,000 per year. Of their funds $325,000 is funded from the LEAA and welfare title 19 (medicade). The other $75,000 is locally funded. In order to increase the capacity of the methadone program to 1,000, an increase of $800,000 is needed. The other budgets of local and State agencies are: Alcohol and drug dependency agency of the state department of mental health—$741,000 of which $472,000 is Federal money and $269,000 is State. The ADD has methadone and in-out patient programs. Their residential treatment center, Dartec, is geared to take 45; drug information center—$65,000; model cities—$135,000; roots—$35,000; The Community Renewal Team of Greater Hartford is presently applying for grants to the OEO. Thus the total amount of money now being used in the city of Hartford for drug rehabilitation and treatment is $1,350,000.

The last great need now facing the city is for an urban residential facility for adults. This facility must be equipped to serve the Spanish-speaking addicts of the city. The initial facility should be geared for 50. Because this must be a residential facility, it must meet the stringent State building codes covering boarding houses. The estimated cost of this service would be $250,000.

The total estimated additional need for the city of Hartford to finance all of its needed programs is $1,450,000.

Methadone expansion	$800,000
Youth residential treatment facility	250,000
Adult residential treatment facility	250,000
Drug awareness program for public schools and mass media	150,000
Total	1,450,000

This is without funding of additional parole personnel.

In the area of Federal legislation, we would propose laws for assisting the narcotics user similar to those concerning aid to the alcoholic under the Hughes bill. However, no matter what course of action is decided upon by your committee, the essential things to bear in mind is that all legislation and programs must be made more realistic and sensitive to the people's needs.

In summary, there has been a substantial buildup of services for the treatment and rehabilitation of the drug user, perhaps too great a variety of programs with too little coordination between them. There has been, in addition, a substantial increase in efforts to control the flow of drugs into the region with increasing numbers of arrests, but indifferent success in interrupting the flow of drugs. The drug traffic for the city of Hartford has weighed most heavily on the poor, especially the black and Spanish-speaking poor for whom this has become an additional obstacle to health and happiness.

Many of the programs alluded to are currently in need of funds to even maintain present programs, much less to expand them. A substantial infusion of funds for the support of drug service programs for both drug abuse and the broader problem of alcohol use is needed in the city and in the region. An improvement of present programs rather than the establishment of many new programs would do much to improve the lot of the drug user. This will not be possible without substantial additional funding, probably from Federal sources.

Specifically, the city of Hartford needs additional facilities for methadone maintenance. The current capability is 450 heroin addicts. The agencies providing service feel there is a potential immediate need for 1,000 patients. This would cost an additional $660,000 per annum. All agencies agree that there is increasing need for service to the juvenile drug user—age 16 and under. Currently, there is only a 30-day hospital program with six beds. Needed is a long-term residential treatment center for at least 50 children. This would cost $300,000 per annum.

The Vietnam war veteran is not being served by present programs of the Veteran's Administration hospitals in this area. These hospitals will require additional funds—probably at least a million dollars, to develop programs and begin long-term treatment.

More is needed for drug education, both in the schools, in the community, and especially through radio and television programing. Some of this needs to be aimed at the increasing use of drug combinations by young people. Use of hard narcotics or marihuana and alcohol (Boone's Farm Wine, Malt Duck), as well as other mixtures, is being recognized commonly. Children in the streets are "stoned" early in the day.

Present programs are funded at about $1 million in Federal funds, $300,000 in State funds, and $150,000 in local funds. As indicated above, at least another million dollars for expanded methadone maintenance, residential treatment for youths, and public education is needed. State and local funds should increase proportionately.

We need to treat drug abusers as sick children and sick adults. We also need to attend to the social ills that force people away from reality to the hallucinatory, confused world of drugs.

[Exhibit No. 26(d)]

Statement of Bartholomew F. Guida, Mayor, New Haven, Conn.

Chairman Pepper and members of the Committee, I appreciate this opportunity to submit testimony to your committee about the problems of drug abuse confronting the city of New Haven. I am sure that it is similar to those problems faced in other cities throughout the country. It is extensively and frightening and continually increasing. It affects every member of our community and, therefore, the vital life of our country.

THE EXTENT OF THE PROBLEM IN NEW HAVEN

Drug experts in New Haven have given us some idea of the characteristics of drug users and experimenters in our community. In common with most other cities, all types of drugs are used in New Haven. Among users and experimenters there is some distinction in the type of drug used by various age groups. For example, those preteen youngsters experimenting with drugs concentrate on glue sniffing, while early adolescents, 12 to 14 years, involved in drugs, smoke marihuana and occasionally take LSD or heroin. The middle adolescents, 14 to 17 years, taking drugs, use marihuana, psychedelics, heroin, and amphetamines; while late adolescents, 17 to 20 years in this category, are into marihuana, psychedelics, heroin, amphetamines, and barbiturates. Young adults 20 to 25 years, who use drugs, are into marihuana and heroin, and less often psychedelics, amphetamines, barbiturates, and cocaine. Adults, above 25, who are users, are into marihuana, heroin, barbiturates, and cocaine.

Surveys by our drug treatment specialists indicate that users and experimenters who live in different areas use different types of drugs. Inner-city users concentrate on marihuana, heroin, and cocaine; outer-city users on marihauna, amphetamines, heroin, and less often, LSD. Marihuana, psychedelics and less often, heroin and amphetamines are prevalent among suburban users. Black addicts use marihauna, heroin, and cocaine predominantly; Puerto Rican addicts, marihauna and heroin; and white addicts, marihauna, psychedelics, amphetamines, heroin, and barbiturates. In terms of causes for drug use, users who suffer from socioeconomic deprivation mainly use marihuana, heroin, and cocaine. Psychological disabilities among users lead mainly to marihuana, heroin, barbiturates, and amphetamines. Addicts who feel bored or alienated turn most often to marihauna, psychedelics, heroin, and amphetamines.

A thorough survey of drug use and addiction is now being made in the New Haven area. We estimate that there are now 1,200 to 1,500 heroin addicts and another 1,500 to 2,500 heroin experimenters. There are not even any good guesses on the use of other drugs in the area, but we do see the following trends:

1. Heroin use is increasing markedly in white suburban and outer-city areas. The rate of increase in the inner city is slower, but the total numbers remain higher;
2. The use of LSD is leveling off to decreasing. There is a rise in the use of mescaline, but most of what is sold as mescaline is LSD or STP;
3. The use of amphetamines is leveling off to decreasing; and
4. The use of marihuana is increasing in all strata of the population.

THE EFFORT IN NEW HAVEN

New Haven has a comparatively extensive drug effort, but one that goes nowhere near meeting our needs;

1. The drug dependence unit of the Connecticut Mental Health Center, located in New Haven, is financed through a 5-year grant, which began in July 1968, from the National Institute of Mental Health. The unit is a demonsrtation project which provides an almost full range of service to drug-dependent individuals, plus educational and preventative programs. It services the entire New Haven region, a 13-town area. The unit sees individuals from 14 on up who have difficulty with narcotics, amphetamines, phychedelics, and barbiturates. To date over 1,000 patients have been seen by the program, and on an average day there are over 350 patients in active treatment.

The drug dependence unit has six major components:

A. Methadone maintenance program

In this program, methadone, a synthetic narcotic which blocks the effects of other narcotics such as heroin and eliminates drug craving, is dispensed to heroin addicts over 21 with a history of at least 2 years of addiction and who have previously failed at attempts to remain abstinent. In addition to receiving the drug, participants are involved in a variety of therapeutic vocational and educational endeavors, with the ultimate goal being a productive as well as drug-free life.

B. Daytop, Inc.

Daytop is a residential treatment community staffed entirely by ex-addicts who are Daytop graduates. It accepts patients from 16 on up who are drug dependent and has a capacity of over 50. The program utilizes certain aspects of "reality therapy," with drug-dependent people being helped to understand and deal with their emotions, evasive behavior, and reasons for using drugs. Participants are expected to remain in the program for at least a year.

In addition to work at the facility, Daytop staff and residents are involved in numerous speaking engagements and four regional activities including a storefront in Milford, work with the NARA program at the Danbury Federal prison, work with drug addicts at the Connecticut State prison in Somers, and work with addicts at Cheshire Reformatory.

C. Outpatient clinic

The outpatient clinic is the initial induction facility for all patients to the unit, and is involved in direct treatment of adolescent and young adult drug abusers, and provides consultation to a variety of youth-serving institutions and agencies. Naloxone, a nonnarcotic medication which when taken daily blocks the effects of horoin, is available to those who require it as part of the outpatient program. Participation in a wide variety of activity groups, and graduation to leadership training toward employment within the program or with other agencies, is based on the individual's readiness to begin helping others.

D. NARCO, Inc.

Narcotics Addiction Research and Community Opportunities, Inc., is a storefront operation concerned with the rehabilitation of drug dependent persons. It offers a variety of services, including screening and referral to treatment centers, legal aid, personal and family counseling, a prerelease program in which NARCO representatives visit Connecticut's penal institutions to help prepare inmates to function after their release, and an educational program.

NARCO is about to receive funds from the Connecticut Planning Committee on Criminal Administration to open a detoxification center. It also is involved with the drug dependence unit's epidemiology and evaluation unit in an NIMH grant for the evaluation of drug educational programs and an epidemiologic survey in various school systems. It has also recently opened a storefront in Waterbury.

E. Drug Dependence Institute

The Drug Dependence Institute functions on a national basis and offers training in the prevention and treatment of drug addiction to advance knowledge and understanding of drug dependence. It also provides orientation and consultation services to school systems and agencies throughout the Northeast.

F. Epidemiology and evaluation

This division is responsible for evaluating the drug dependence unit's effectiveness in dealing with drug addiction, its ability to provide effective treatment for drug-dependent persons, and its ability to reduce the level of drug dependence in the area served by the project. To accomplish this, it monitors the activities of the unit and examines the incidence and prevalence of addiction in the area.

2. Number Nine is a storefront crisis center, a "crash pad" and "hot line", which works with adolescents in various difficulties including those onto drugs. Its main work has been with users of psychedelics and amphetemines.

3. Youth Crusaders, Inc. is a religious group modeled after Teen Challenge. It has no local facilities, but sends addicts to programs in New York and Philadelphia. It now operates on private contributions and volunteer services and has been trying unsuccessfully for 2 years to raise funds for a local residential center.

4. New Haven has several neighborhood-based programs and anticipates the development of new ones. Similar to most, Project Enough is a storefront operation which provides information and referral to addicts and potential addicts in the Fair Haven area. It is hoping to operate a program in a vacant school in the area, which the city of New Haven is providing to the project free of charge, which will include group counseling, individual counseling, community education, and recreation to local residents. As yet, funds to operate the programs have not been available. The other neighborhood-based programs are not firmly established and have, therefore, not been included.

Besides these efforts, others exist in the city, especially through education about drug abuse in the schools and enforcement activities in the police department. These are not as clearly identifiable and will not be included specifically here. The funds involved during the current fiscal year in the programs mentioned above are:

	Federal	State	Local	Total
Drug Dependence Unit	$574,000	$146,000		$720,000
Drug Dependence Institute [1]	317,174			317,174
NARCO [2]		87,468		87,468
Project Enough (for 4 months)			$150	150
Number Nine			35,000	35,000
Youth Crusaders, Inc			6,000	6,000
Total	891,174	283,468	41,150	1,165,792

[1] Funds for DDI are separate than those received for the Drug Dependence Unit. $139,025 is used for national training and $178,149 for the New Haven area.

[2] These funds are received in addition to those through the Drug Dependence Unit.

Thus, a total of $1,165,792 is being spent on these programs alone and it comes nowhere near meeting our needs. The Methadone Maintenance program which now handles 200 people at a cost of $4.75 per person per day could easily be doubled. Daytop could use a second facility to handle another 50 people at a cost of $9.50 per person per day. NARCO has been told it will lose about $33,000 in funding from the State and needs that much plus $50,000 to renovate its detoxification center. The use of Naloxone at the Out-Patient Clinic is now available to only 15 people; funds for 75 additional people at $10 per person per day could be utilized immediately. The $50,000 now being spent on outpatient services for acid and speed users could be tripled. Neighborhood centers to provide preventional and educational centers, alternatives and referrals are needed. In other words, a tremendous amount of money is needed right away for New Haven barely to begin to meet its needs.

THE ROLE OF THE FEDERAL GOVERNMENT

Legislation for treatment efforts is in place. The item lacking is funding. Other than possibly consolidating the programs in a single office in HEW, instead of the current situation in which they are in the Office of Education, the National Institute of Mental Health and the Office of Economic Opportunity no new legislation would appear to be necessary, rather increased appropriations. More funds are also needed for the grants administered through the Law Enforcement Assistance Administration of the Justice Department which provide money for drug abuse programs.

Enforcement efforts at the local level are not and cannot be sufficient to deal with the problems of the availability of drugs. We cannot stop the flow of drugs into our cities because the flow into this country is not under control. Greater enforcement efforts are needed along the country's borders. More customs officers and more stringent procedures for searching incoming goods and travelers could greatly decrease the amount of avaliable drugs, especially heroin. In addition, the dispensation of drugs through doctors and pharmacies should be much more closely regulated. Each should be required to submit reports to the government on all drugs distributed through them. This could greatly reduce the abuse of amphetamines and narcotics.

It must be realized that any of these efforts are stop-gap in nature. The need for drugs or any other outlet stems from problems in our society. These are problems which I would not presume to define but which cannot be dealt with through anything short of a national effort. What is it in this country or in human society that makes man turn to drugs or alcohol or any other escape mechanism?

I appreciate the opportunity to submit this testimony to you and hope that we can find a way for this country to deal with this serious problem.

[Exhibit No. 26(e)]

STATEMENT SUBMITTED BY JOSEPH F. O'NEILL, COMMISSIONER, POLICE DEPARTMENT, PHILADELPHIA, PA.

The narcotics problem in Philadelphia, as in every other area of our Nation, has increased substantially in recent years. This is reflected in the dramatic jump in the number of offenders arrested for narcotic violations as indicated in the following table:

Year:	*Total arrests*
1965	928
1966	1446
1967	1871
1968	3047
1969	3828
1970	7218

Based on current arrest rates, approximately 10,000 persons will be charged with narcotic violations in Philadelphia during 1971.

Certainly this tenfold increase in narcotic arrests is cause for concern. From a police view, narcotics activity today requires a major portion of police manpower for the detection and apprehension of persons involved in the sale, possession and use of narcotics in the community. Also a significant amount of other crime is generated by narcotics addicts who must frequently commit property crimes to obtain the necessary money to support their habits.. Although precise data is not available, knowledgable estimates indicate that between 25 percent to 40 percent of all property crimes are committed by addicts.

The Philadelphia Police Department realizes that any realistic reduction in narcotic addiction and narcotic-related crime will only come when treatment and rehabilitation programs work effectively. Past experience in treatment programs indicates a very low success rate in keeping the majority of addicts from returning to the use of narcotics.

The city of Philadelphia, like most other communities, has a number of programs and agencies offering different approaches to the many problems of narcotic addiction. A variety of approaches is needed to handle the many variations in the needs of addicts.

However, centralized coordination of these programs must be provided to achieve the maximum benefit from these various programs. Coordination will help insure a balanced and more effective approach to treating addicts.

Coordination of programs will also assist in the evaluation of the efficacy of the different methods of rehabilitating addicts. There has been little done to measure how successful treatment programs have been in dealing with the problem of addiction.

In some situations, several treatment agencies must compete and try to obtain funding from the same source. Funds might be from the Federal, State, or local governments as well as from private foundations. If treatment programs were measured and evaluated, maximum results could be achieved from limited funding programs.

The funding of treatment programs for narcotic addicts must be greatly expanded to provide the size of programs needed in most communities today. While the 7,218 narcotic arrests during 1971 involved about 6,000 individuals, there are only about 120 beds available for inpatient care and perhaps programs on an outpaient basis for less than 1,000 people. These figures indicate that we are only treating a small portion of the addicts who are detected by arrest.

Expansion of rehabilitation programs for addicts is absolutely necessary if we are to reduce the scope of narcotics addiction in our society.

Successful treatment programs will strengthen and reinforce police activities in curtailing narcotics addiction. Without proper rehabilitation efforts, narcotics usage will continue to increase in the years ahead.

PHILADELPHIA DEPARTMENT OF PUBLIC HEALTH,
OFFICE OF MENTAL HEALTH AND MENTAL RETARDATION,
Philadelphia, Pa., July 7, 1971.

Hon. CLAUDE PEPPER,
Chairman, House Select Committee on Crime, House of Representatives, Washington, D.C.

MY DEAR MR. PEPPER: In response to the request from Mayor James H. J. Tate for information about the drug addictive problems in Philadelphia which was forwarded to the Office of Mental Health/Mental Retardation, Department of Public Health, I am pleased to provide you with the following information concerning the question of drug addiction problems confronting our city.

I deeply appreciate this opportunity to discuss with you the needs for drug addiction treatment and rehabilitation within the City of Philadelphia. The social costs of drug addiction and abuse are immense. The activities that illicit drug users must be involved in to support their habits represents a staggering cost in terms of lives lost and property destroyed. There are few reliable statistics reporting the number of drug addicts or heavy abusers; we must therefore resort to estimates. A rather conservative estimate of the number of heroin addicts in the city is put at 20,000; another 35,000 to 50,000 are heavily abusing barbiturates and/or amphetamines. The cost to society in terms of property stolen needed to support these habits runs into many millions of dollars in Philadelphia alone.

Narcotics arrest figures add another measure of the growing epidemic of drug addiction and abuse sweeping our Nation. In the city of Philadelphia, arrests for narcotics have increased dramatically since 1965 when 928 arrests were made (including 23 juvenile arrests), to 1970 when there were 7,218 arrests (including 902 juveniles). In 5 years the total arrests for narcotics has increased almost sevenfold; even more dramatic is the rise in juvenile arrests which during the same 5-year period increased over 38 times! This rise in reported arrests represents a real increase in the numbers of individuals using heroin, rather than a product of any significant change in law enforcement practices.

Statistics collected by the office of the medical examiner for the period January 1 to September 30, 1969, reported 79 deaths due to narcotics and narcotics-related causes; for the period January 1 to September 30. 1970, there were 135 such deaths, an increase of 58.5 percent! Operating on the generally demonstrated correlation between the number of narcotics-related deaths and the total number of heroin users, it can be reasonably concluded that heroin use in 1970 exceeded that of 1969 by a substantial margin, which predicts an even greater increase for this year.

It is essential that a coordinated and extensive system for the treatment and rehabilitation of drug addicts and abusers be developed in the Nation's urban areas. Because of the nature of the problem of illicit drug abuse, new modes of treatment must be incorporated. Since the modes of treatment often differ in individual effectiveness, a broad spectrum of programs and services is needed. The key agency for drug addiction treatment and rehabilitation in the city of Philadelphia rests with the department of public health, office of mental health/mental retardation. It is this agency which is charged to coordinate and plan for an overall city treatment system. In order to mount an effective campaign to meet this pressing issue, a multimodal system of drug treatment and rehabilitation is required. This delivery system should include facilities, services, and programs such as:

1. *Outpatient treatment centers.*—These include outreach programs, methadone maintenance, counseling, group therapy, vocational training, and family counseling.

2. *Inpatient beds and emergency facilities.*—Detoxification is an essential element in rehabiiltating many drug-dependent persons. In addition, the addict often requires inpatient facilities for related health problems requiring the services of a hospital. Inpatient beds are also required for emergencies from drug overdoses.

3. *Therapeutic communities.*—The therapeutic community is a facility coming into wider use for the treatment of addicts. It is usually a long-term modality, with residential services as a part of an overall therapeutic program. These facilities often employ group encounter techniques, individual counseling and treatment.

4. *Halfway houses.*—These programs are valuable for helping the drug-free individual to assume a new role and life style before complete reentry into the community. Therapy and group encounter are main components of service.

5. *Day care centers.*—Day care centers allow the addict to live in the community, yet spend a large portion of his day hours in the facility where treatment and rehabilitation of differing modalities can be offered and prescribed for the individual.

6. *Research, education, and training.*—A major effort is required for ongoing research into the nature and modes of treatment. Prevention must be organized on a community scale including the family and schools. Training programs for addicts, professionals, and paraprofessional should also be a part of an overall approach to develop community resources to deal with the growing drug problem

To date, the impact of present efforts holds encouragement for the future. The city's office of mental health/mental retardation presently funds three methadone treatment units with approximately 900 patients and a waiting list of 900 additional patients. Two additional facilities scheduled to open within the next 2 months will be able to handle another 400 patients. The rolls for these new programs will undoubtedly fill up in a short time adding further to the community's disenchantment with the ability of treatment facilities to keep pace with the drug problem. Other programs operating in the city are not presently part of any coordinated system, the range of services is limited, and most have extensive waiting lists.

In order to deal with a situation, the magnitude of the drug problem in the city of Philadelphia would require a coordinated effort in treatment and rehabilitation programs and a commitment of large amounts of money. It is estimated that to provide a system of treatment using the modalities outlined for only 25 percent to 50 percent of those affiliated with drug problems would cost $15 million to $25 million per year. This cost is considerably lower than the estimated costs of crime and law enforcement related to drugs.

In order to begin to tackle the drug menace, an insurgence of interest and money is required. The costs of adequate services are such that most localities can ill afford to make avaliable necessary funds to cope with the needs. The Federal role must be aimed at the problem center, the large metropolitan areas. Large amounts of direct funds for all modes of treatment are required in addition to continued support for research to develop better treatment modalities. These funds should be channeled to responsible agencies able to secure a balanced approach to treatment and rehabilitation.

The drug problem is nationwide. It is not limited to the ghetto or the inner city, but strikes across all segments of society. Its destructive aspects, if allowed to continue, could disintegrate the cities and the very fabric of society, the family. The tragedy of many thousands of young people in Philadelphia forced into criminal life style to support their habits, the broken homes, the destroyed families emphasize the need for extensive action now with a high priority.

Sincerely yours,

LEON SOFFER, PH. D.,
Deputy Health Commissioner.

[Exhibit No. 26(f)]

STATEMENT OF WALTER E. WASHINGTON, MAYOR, DISTRICT OF COLUMBIA

I would like to thank this committee and its chairman for giving me the opportunity to discuss the problem of drug addiction in the city of Washington, and what the city's additional needs are in coping with this serious problem.

It is estimated that there currently are approximately 17,000 heroin addicts in the District of Columbia.

Presently, the Department of Human Resources' Narcotics Treatment Administration, headed by Dr. Robert L. DuPont, has 3.500 of the city's addicts in treatment. This represents a dramatic increase over the 150 addicts who were in treatment a mere 15 months ago. Our plans are to increase treatment to 5,500 addicts by July of 1972.

The Narcotics Treatment Administration, (NTA), is Washington's first comprehensive and city-wide narcotics treatment program. In addition, it is the largest, multi-modality agency aimed at treatment of heroin addicts in the country. There are several different treatment approaches, each of which is determined by the individual's needs as shown after examination, counseling, and patient-staff consultation. These include: abstinence, methadone detoxification, methadone maintenance, and urine surveillance. Each is backed up by urine surveillance and individual or group counseling.

It is my understanding that Dr. DuPont has testified before this committee and has provided you with more detailed and technical information regarding all aspects of our heroin treatment program including our planning for the future.

Even though we are extremely pleased with the progress we have made in the past 15 months, we could further increase the amount of addicts treated if additional funds were made available.

As you know, the District of Columbia has been fortunate to receive Federal financial assistance. To date, we have received approximately $4.5 million in assistance for our narcotics treatment program. The District government, itself, has also made substantial contributions of its own towards providing an adequate treatment program to deal with the city's heroin problem. Allocations for this purpose have been $3.1 million including funds for fiscal year 1972.

We realize that the heroin epidemic that exists here in Washington is not a unique phenomenon, but a serious problem that is plaguing all our Nation's cities. We do believe, however, that our treatment program has taken a leadership role in the treatment of heroin addiction. And, we would like to continue this role and go even further.

We know that there are critical areas that need additional and large-scale attention.

First, is the need for preventive education and information. We must not only treat those who have been drawn into the maelstrom of heroin addiction, but we must also work to prevent those who have not yet become involved with drugs. An effective program of education and prevention would help to achieve this.

Second, is the need for ancillary and rehabilitative services for the addict who is receiving treatment. Treatment is an important step in breaking the addict's drug dependency, however additional services are needed to help that person to be able to function without heroin. Such ancillary and rehabilitative services will help the addict to become a functional member of the community.

Third, is the need for special programing and services for youth. Thirty-one percent of Washington's heroin addicts are under 20 years old. We must develop a total range of programs and services aimed at their problems and needs.

These issues and others are highlighted in a recently released report of the Professional Advisory Committee on Heroin Addiction in the District of Columbia. This committee was appointed by Philip J. Rutledge, Director of the Department of Human Resources to study and analyze the District's present narcotics treatment program and recommend improvements or changes needed to make the program more effective.

In addition to raising several important issues, the report provides an excellent background and review of the types of problems that the Washington community is facing in attempting to mount a large scale heroin treatment program. Many of the people who contributed to the report have expertise in the drug problem area, and you might want to elicit their testimony for your committee's study.

Heroin abuse and addiction are complex problems. The needs of the addict are varied. The solution to the addict's problem, so far, is only fragmentary.

However, we believe that the effort we have made towards treatment and rehabilitation, while not without risks, has produced humane and constructive results. We are anxious to expand our efforts and broaden our spectrum of treatment modalities, because we will never really be a true success until the plague of heroin addiction has been cured in our city.

We in Washington, as well as those in other cities, are trying to commit as many of our resources as possible to curing this epidemic. But in these times where funds are short, we will need help. And if the national plague of heroin addiction is to be stopped, the Federal Government will have to commit itself to underwriting the financial help.

Afternoon Session

Chairman Pepper. The committee will come to order, please.

Our last witness today is Dr. John C. Kramer, who serves as assistant professor in the department of psychiatry and human behavior, and in the department of medical pharmacology and therapeutics, at the University of California at Irvine.

Dr. Kramer received his medical training at the University of California at San Francisco and served his internship at Kings County Hospital in New York. He is certified in psychiatry by the American Board of Psychiatry and Neurology.

From 1966 to 1969, he was chief of research at the California Rehabilitation Center, and is presently a staff psychiatrist at Orange County Medical Center.

From 1967 to 1969, he served on the review committee of the NIMH Center for Studies of Narcotic and Drug Abuse.

He is the author of numerous articles on drug abuse.

We heard this morning the chairman of the Narcotics Commission of New York; we are particularly anxious to have you speak about your experience in the State of California. As you have noticed, we have had the Governors from Northern and Southern States this morning and a middle State, so we are trying to get an overall view of the magnitude of the problem and the massiveness of the approach that must be made if we are to solve it.

We are very grateful to you and welcome your statement.

Mr. Perito, would you care to examine?

Mr. PERITO. Thank you, Mr. Chairman.

Dr. Kramer, you have submitted to the committee a report which relates to an updated version of an article which appeared in the New Physician in March of 1969. Is that correct?

STATEMENT OF DR. JOHN C. KRAMER, ASSISTANT PROFESSOR, DEPARTMENT OF PSYCHIATRY AND HUMAN BEHAVIOR, DEPARTMENT OF MEDICAL PHARMACOLOGY AND THERAPEUTICS, UNIVERSITY OF CALIFORNIA, IRVINE

Dr. KRAMER. That is correct; yes.

Mr. PERITO. Mr. Chairman, at this point, I would ask that that article which has been submitted as a statement to the committee be incorporated in the record.

The CHAIRMAN. Without objection, so ordered.

Mr. PERITO. Dr. Kramer, you have been kind enough also to prepare a summary of your testimony and I would ask at this point that you proceed, with the permission of the Chair.

Dr. KRAMER. Thank you. I would like to read that.

In an introduction to a book on prohibition, the historian, the late Richard Hofstadter said: "Reformers who begin with the determination to stamp out sin usually end by stamping out sinners."

Since about 1920, in the United States we have been stamping out heroin addicts without stamping out heroin addiction.

In this statement I address myself to the treatment of addicts already made with full awareness that ideally we should attempt to prevent the process from ever starting.

Every treatment ever offered for opiate dependence has had some individual successes. It is important to keep in mind that when people with an emotional investment in a particular program make their case publicly, or before such forums as congressional committees, they show their successes and not their failures.

Regarding civil commitment programs, notably those of California, New York, and the Federal Government, I note that they have been structured so that a patient spends a period of time, usually a number of months in an inpatient facility and is subsequently placed on parole subject to close scrutiny regarding his general behavior and drug use. For the most part these programs have opted for complete abstinence in their patients. These programs are very expensive; the Federal program, for example, costs in excess of $10,000 per patient-year for inpatient care, and $2,000 to $3,000 per year for outpatient care. The New York and California programs have had very little success in rehabilitating their clients. The Federal programs have appeared so far to be more successful, but this may be in part accounted for by massive rejection of difficult candidates, and because aftercare is contracted out to local agencies which are paid in part on the basis of the number of patients they retain.

Despite its limitations some form of civil commitment probably should be retained as a last resort for patients who fail in other programs.

Self-help groups such as Synanon, Daytop, Gateway, and others have proven to be very useful but for a limited number of addicts.

Regrettably, few addicts volunteer for these programs, still fewer are accepted, fewer yet remain, though of those who remain, a moderate proportion succeed. From the point of view of the mass of American addicts, these groups, it appears, will play a modest role. These programs too are very expensive.

Methadone maintenance—and potentially narcotic antagonist—programs are the most widely accepted among opiate dependent people and have proven, beyond a doubt, to be the most effective technique to control addiction. Methadone maintenance, even on the pharmacologic level, is not merely a switch from one addiction to another. The long action of methadone produces a stable physiology as opposed to a roller coaster physiology with intravenous heroin. Tens of thousands of addicts are now waiting to get on such programs and cannot because of the lack of available facilities. I might point out that I have about 220 patients on my own program in Orange County, Calif., while 450 are waiting to get on. I have been unable to put additional patients on for the last 3 months because of the lack of facilities which ultimately resolves down to the lack of funds.

For purposes of treatment, heroin addicts can be divided between those with a relatively short addiction history, that is less than 1 or 2 years, and those on the other hand with a long history, that is, beyond those limits and especially those who have repeatedly relapsed into addiction. Those with short addiction histories, in general, might best be handled through individual interaction programs, such as Daytop, Synanon, and perhaps by narcotic antagonists; those who have been long-time addicts will probably, for the most part, be best handled in methadone maintenance programs.

The Federal Government can assist in the treatment of narcotic addicts by supporting:

(1) Detoxification facilities. In most communities with an extensive heroin problem there is serious shortage of hospital space even to allow an addict to get off his drug with no further treatment.

(2) Massive facilities to provide methadone maintenance to all appropriate candidates should be provided as promptly as good management allows. Federal funds will almost certainly be necessary for this purpose.

(3) Nonestablishment rap centers and self-help programs must have support. One problem of such facilities is their distaste for redtape, of making formal applications, and of sending in formal reports.

(4) As programs multiply there will be a need for trained staff. One or several national centers for training a wide variety of professionals and nonprofessionals should be supported through Federal funds. In addition the Federal Government might support a faculty member at each medical school who will devote himself to training and educating physicians and other medical personnel. A career support program might facilitate this.

One reason for the range of opinion among specialists in the drug abuse field has been the inadequacy of data collection, both of program results and of the ongoing drug scene. Any Federal effort should provide a system of collection of data particularly from federally funded programs but also from other programs.

Though new research is always necessary, there are two projects of critical immediate importance; one is the development of a long acting narcotic antagonist, and the other is the final testing of a long acting form of methadone.

It is also time, I believe, for the Federal Government to bring an end to a fiction, a useful fiction, but nevertheless a fiction, namely that methadone maintenance is an experimental procedure. This fiction is necessary in order to, in effect, license methadone maintenance programs. Continued close control over such programs is unquestionably necessary. It should, however, be done through licensing rather than through its retention as an investigational procedure.

Spending lots of money will not alone assure a good result. Lots of money may be necessary, but good planning must go with it.

Mr. Perito. Doctor, I take it from your statement that you have severe reservations about the present concept of the IND number as presently structured through FDA.

Dr. Kramer. I have reservations about it only in that it is a fiction and that certain disadvantages in the use of this treatment are caused by this fiction. I have tried to emphasize that control is necessary, but it should be done through a legitimate procedure rather than, as I say, through a subterfuge.

Mr. Perito. In other words, you do not believe that since there are 30,000 addicts being treated under a methadone maintenance approach that the FDA is seriously making a determination as to whether the drug is in fact, safe and efficacious.

Dr. Kramer. I know that they are making such statements. I read one such statement in the press. The American Medical News published a letter from the public information director of the FDA in which he insisted that it was, in fact, an experimental procedure. Most of us involved in the study of methadone maintenance would disagree, I believe.

Mr. Perito. Do you think substantial disadvantages flow to the physician as a result of the present system of allowing methadone maintenance only under the investigational new drug permits?

Dr. Kramer. I think that it increases the difficulty in initiating and expanding legitimate programs.

Mr. Perito. Doctor, based upon your experience, would you say that antagonists have a place in civil commitment programs?

Dr. Kramer. Antagonists?

Mr. Perito. Right; do you believe that antagonist drugs, like cyclazocine, naloxone, have a place in the treatment armamentaria of physicians?

Dr. Kramer. I believe any useful technique to control addiction has a place in civil commitment programs; yes, including the use of narcotic antagonists.

Mr. Perito. Do you know, based upon your experience, whether narcotic antagonists are being used in civil commitment programs in California?

Dr. Kramer. I am reasonably certain that they are not being so used. They may be used for detection, the so-called Nalline test is used, I believe, in Los Angeles County. But in terms of a treatment procedure, to the best of my knowledge, they are not being used in civil commitment programs in California.

Mr. Perito. Doctor, you have a substantial experience with the civil commitment program in California. Based upon your experiences, do you think that it is possible to structure an involuntary civil commitment program which will produce results, results in the sense that you will increase the number of people being substantially helped?

Dr. KRAMER. Yes, I believe that civil commitment programs can be structured so that the success rate will be substantially increased. I think this can be done through reasonable and extensive use of all the modalities that we currently have available, including methadone maintenance, potentially including narcotic antagonists, potentially including Synanon-type programs.

One of the problems in the civil commitment program in California is that in the so-called group therapy meetings, the man's likelihood of departing from the institution depended on what he said in the group meeting. This encouraged a certain amount of deception on the part of the patients.

Mr. PERITO. Have the treatment approaches changed with the passage of time since the inception of civil commitment programs in California?

Dr. KRAMER. Yes; there have been some changes. I think a genuine effort is being made on the part of the people who are running the program. I have never denied their desire to make their program successful.

The changes for the most part have been procedural rather than substantial. The one most promising aspect of this is that the California Department of Corrections, which has the authority over the civil commitment program, has on its own initiated a methadone maintenance program, both for civilly committed addicts, and for feloneously committed addicts, and has in the last year or so allowed their parolees to be admitted to methadone maintenance programs.

I might point out that about a year ago, we had to go to court to ask to have a patient of ours admitted to a methadone maintenance program and I must say that though we lost in the courts, the pressure of the publicity probably forced the change on the part of the parole board.

Mr. PERITO. The committee has heard some limited testimony on the NARA program, Narcotic Addict Rehabilitation Act, which I know you are familiar with. By and large, I think it is fair to capsulize it that the implementation of the act has not been particularly successful, has not spanned a broad range of treatment approaches, nor has it been able to help that may people. Based upon your experiences, why do you think that NARA has not done so well?

Dr. KRAMER. I pointed out in my statement that from the information that I had, which is now about 6 months old—I have not gotten more recent information—they seemed at least at the beginning to be doing a little bit better than the California or New York programs. One reason that they have not done even better, perhaps, is because those running the program seem, frankly, rather antagonistic to the methadone maintenance approach. When I spoke with one worker in the NARA program, he almost apologized for the fact that they had several patients on outpatient status who were receiving methadone and he did not in fact include them in his list of successes.

Mr. PERITO. Do you think the States on their own can structure programs in the civil commitment area without substantial help from the Federal Government? Based upon your experiences?

. Dr. KRAMER. From what I have seen in California and New York, it would require an expenditure of a vast amount of money. New York State, to the best of my recollection spent, I believe, about $70 million just for capital expenditures to initiate their civil commitment program. I think that it would be too expensive at a time when States are trying to conserve funds wherever they can.

To get behind that question a little bit, I would also say that there are many other approaches which are more likely to be of greater value that States should exhaust the variety of other possibilities before initiating civil commitment programs.

About a year or so ago, in speaking to some people in the State of Michigan, they asked me the same question. My response to them, put very simply, was that until they discover how effective a massive methadone maintenance program would be, they should not start a civil commitment program. Only when they had taken these other steps, should they look into the expansion of civil commitment programs.

Mr. PERITO. Dr. Jaffe, in testifying before the committee, said that if he had only a limited amount of money to spend and was charged with the responsibility of effecting the best possible results—that is the reduction of crime and the reorientation of the addict into society and into a productive lifestyle—he would spend such limited funds on methadone maintenance. Would you agree with that conclusion?

Dr. KRAMER. Unquestionably.

Mr. PERITO. Dr. Jaffe has been doing research on a new drug which I know you are aware of, acetyl-methadol, a longer lasting methadone. Have you done any similar type research in California?

Dr. KRAMER. Not with the long-acting form; no. There are very few people who have. Jaffe is one.

Mr. PERITO. Based upon your experiences, do you think that this drug or a drug similar to it in morphological structure, offers hope?

Dr. KRAMER. One of the major problems in the management of methadone maintenance programs, as this committee is aware, is the illicit diversion of methadone and any technique that can be developed which will reduce the methadone or the illicit diversion of the drug should be sought and certainly a long-acting form of methadone is one technique to minimize if not to eliminate diversion of the drug.

Mr. PERITO. I would just like to direct your attention briefly to another area. The committee has heard a fair amount of testimony about narcotic antagonists, particularly cyclazocine, nalaxone and M–5050. Based upon your experiences, do you think that money channeled into these areas would be well spent?

Dr. KRAMER. I think that money channeled into these areas would be indeed well spent and regrettably, from the information that I have, almost nothing is being done at the present time to develop a long-acting form specifically of nalaxone, which to my knowledge is the most promising form of narcotic antagonist. I was in contact just yesterday with Dr. Max Fink, who undoubtedly you know, has been working in this area and almost nothing is being done. There are many things in the area of drug abuse which are shameful, but I think that the fact that so little money is being supplied for this effort is one of the most shameful, because we have here a tool which has a very high likelihood—it is not certain, but it has a very high likelihood—of being exceptionally useful, not only for the long-term addict, but particularly for the short-term addict, for whom we have no other tool similar to methadone.

Mr. MURPHY (presiding). Let me interrupt you a minute.

Doctor, what type of money are we talking about? What in your opinion would be a realistic figure to start with as far as pure research is concerned?

Dr. KRAMER. For the development of a long-acting form, nalaxone?

Mr. MURPHY. Right.

Dr. KRAMER. I would guess in the terms of half a million dollars for the development which would take, I believe, about 2½ to 3 years.

Mr. MURPHY. Dr. Resnick, in testimony before this committee, testified that he thought that within a year's time, an expenditure of between $5 million and $10 million on on the part of the Federal Government would produce positive results in the form of an immunization drug to prevent future heroin addiction. Do you have any comments with regard to that?

Dr. KRAMER. Again, the only thing that I know about that specific piece of research is what I have read in the newspapers.

The idea of immunizing someone against heroin addiction is a very interesting one. It is a bit more of a "blue sky" proposal than some of the others that I have mentioned. But certainly, it is one which is most interesting and should be pursued.

Mr. MURPHY. Doctor, in your testimony here, you say that the Federal Government facilities have massive rejection of difficult candidates. Could you elaborate on that a little bit?

Dr. KRAMER. The figures that I recall—and again, these are about 6 months out of date—were that about 60 percent of those individuals whom the courts sent to the NARA I and III programs were rejected. The reasons were for such things as certain physical diseases, psychosis, and one of the reason, I think perhaps the fifth or the sixth out of five or six, was a lack of true motivation. This certainly is an umbrella under which anybody who does not appear to be a good candidate can be rejected. What good motivation is, I am not sure, because particularly in methadone programs, we have seen some very poorly motivated people do very, very well.

This is the information as best I have it.

Mr. MURPHY. In your statement on page 3, No. 2, you say massive facilities to provide methadone maintenance to all appropriate candidates. Are you not suggesting the same thing these Federal institutions are by saying—you call it appropriate candidates. I think their terminology is—I forgot what it was—difficult candidates. Are you not talking about the same thing?

Dr. KRAMER. No; I think that some of their good candidates would be good candidates for methadone maintenance, but some of their bad candidates would also be good candidates for methadone maintenance.

I do not want to get into the box of being solely an advocate of methadone maintenance because I feel that a variety of approaches are necessary, as I have stated. The issue is that, as Mr. Perito quoted Dr. Jaffe, if you have got to bet on one horse, methadone is the horse to bet on. Certainly, if you have got the capacity to put your money on a number of horses, there are a number of things that you can put your money on, but methadone maintenance can't be forgotten, because it is the most likely procedure to engage an addict. It is the most likely procedure to lead him into a productive and crime-free life.

Mr. MURPHY. Doctor, I am glad to see that you suggest that a collection bank of data, particularly from federally funded programs, be instituted. I think my colleagues here and the expert witnesses we have that have testified before us have all suggested this. Seemingly, this is one thing we all agree on, that we are not collecting all our information.

Have you any ideas how we could do this?

Dr. KRAMER. In order to gather the maximum amount of data, you have to have a handle on the people who potentially can provide it. The only handle that is generally available to the Federal Government is if they give the money, they can insist on the answers. In addition, nonfederally funded programs might have the opportunity to seek special grants to provide personnel who will assist in compiling a variety of information for the use of the program as well as for submission to the data bank. The data banks may be set up on a regional basis with some sort of a central bank, perhaps, here in Washington. Some degree of regionalization may be appropriate, because the kinds of programs, the extent of drug abuse, differs from one part of the country to another.

Mr. MURPHY. Counsel suggests the confidentiality element involved here, that we are revealing—obviously if you are starting talk—about collecting data, you are revealing names, et cetera. The Governor of Georgia stated today that the Army was reluctant to turn over to him information about fellows who were about to be discharged who are addicts because of the confidential nature of that information.

How would you handle that?

Dr. KRAMER. Absolutely, I believe that any law which is written which provides for the collection of such information must include an absolute provision for confidentiality—I would underline that—must be built into it or else the individuals involved in collecting data will be reluctant, patients will be reluctant to go into programs that they fear might reveal them.

The importance of collection of data is not the importance of finding out specifically who the individuals are, but rather understanding the problem as a scientific one.

Mr. MURPHY. Thank you, Doctor.

Mr. PERITO. Just two more questions, Doctor.

We heard from Dr. Frances Gearing and she revealed some very impressive statistics about the efficacy of the methadone maintenance approach as far as the reduction of crime is concerned for those addicts under treatment. Do you know of any similar studies of efficacy of treatment modality related to reduction in crime rate on drug-free therapeutic approaches?

Dr. KRAMER. Yes; the civil commitment program in California also reported on the reduction in convictions of individuals on outpatient status in their program and it showed a fairly marked decrease in convictions. The problem in this particular data is that in practice, when someone committed to the civil addict program in California is rearrested, even on new charges. often the new charges are not pressed when the civil commitment authorities decide to return the man to CRC, the civil commitment inpatient program. Prosecutors feel that is sufficient; they drop the charges. This is, perhaps, one reason why there was a reduction in the crime rate.

In addition though, it is possible that the very close parole supervision itself, even with the people on parole from the civil commitment program, does have an effect in reducing crime. Credit should not be taken away from the program, because they may deserve it.

Mr. Perito. Doctor, do you think that lack of proper aftercare facilities has injured the effectiveness of some of the NARA treatment programs?

Dr. Kramer. I am not familiar with any information which would suggest that the aftercare facilities are inadequate. From what little I have heard, and again this is hearsay, the aftercare facilities for the most part are rather good in the NARA program. They are well run, as far as I know, with serious and concerned people running them.

Mr. Perito. One final question. What do you think has been the biggest roadblock to the problems confronted by the abstinence programs?

Dr. Kramer. The roadblocks to the abstinence programs are based in a well-known but little understood fact; that is, that once an individual has been seriously addicted for a relatively prolonged period of time to opiates, the desire to reproduce that opiate effect is so persistent and powerful that very few people have successfully given up their drug.

Mr. Murphy. I think the ranking minority member might have some questions.

Mr. Wiggins. I will yield to Mr. Blommer.

Mr. Blommer. Doctor, I believe that California is probably typical of the Federal institutions that contain a number of addicts, and I am talking about prison institutions, a number of heroin addicts that for various reasons are not receiving any type of treatment. Is that correct?

Dr. Kramer. Yes; of course.

Mr. Blommer. Do you have any suggestions as to programs that might benefit a man who is in prison for maybe a very long period of time. looking toward the day when he will get out?

Dr. Kramer. I do not know of any specific inpatient programs—incarceration programs, perhaps, would be the better term—which will better insure a result when the man gets out of prison. One thought that I did have, which I do not think is apropos at this moment in our history, but potentially may be apropos sometime in the future—3 years, 5 years, 10 years—is that when we learn better techniques to retain addicts on the street so that they do not go back to opiates, reconsideration of certain individuals who have been imprisoned for very long mandatory minimums might at that point be made—both Federal mandatory minimums and State mandatory minimums.

A man, for example, who is sent up for 20 years in 1971 on perhaps a third sales "beef" may in 5 years still be facing 15 years mandatory minimum and yet we may have the technology which will, though not guarantee. which might, let us say, offer at least a 70- or 80-percent chance that he will be a useful citizen. I think that it is not the answer to your question, but I take the opportunity to mention it.

I know of no techinque in prison right now available to better assure the result when the man gets out.

Mr. BLOMMER. That is all the questions I have, Mr. Chairman.

Chairman PEPPER. Mr. Wiggins.

Mr. WIGGINS. I regret, Doctor, that I was not here at the beginning of your testimony. I want to say a word of welcome to a fellow Californian. In reading your résumé, it is clear that you are a Californian through and through. I take small comfort only in the fact that when you were required to do clinical research in psychiatry, you had to go elsewhere, to New York and other States.

Doctor, I have observed in California in recent years a proliferation of community-based drug efforts, some of which are attempting to use and perhaps are using methadone as a tool. Are you satisfied that there are sufficient competent people in the communities in California to conduct these programs on a medically acceptable level?

Dr. KRAMER. Mr. Wiggins, the term "community based programs" in general refers to abstinence programs for the most part. Methadone programs generally are not referred to as community programs.

If you are referring to the methadone programs which are currently in operation in California—may I ask you which you are referring to?

Mr. WIGGINS. All right. To be more specific, in my district, almost all of the communities are concerned about a recognizable drug problem within their jurisdiction. Community-based groups—by that I mean not county-supported nor State-supported, nor federally supported, so far as I know, although they all seek funds from any of these agencies—have sprung up, often under the direction of the city council initially. Sometimes it is a PTA or coordinating council group. But in many cases, the group is created from local citizens.

In two instances in my district they have rented facilities and are now undertaking some sort of treatment program for people who describe themselves as drug abusers. There has been discussion about methadone. I would hope that they are not to the point of dispensing it, even for detoxification purposes as yet, but there has been discussion about that. That is the kind of situation I am thinking about.

Dr. KRAMER. I see.

Yes; there are a number of community-based programs. There are a number in your district, several in your district, that I am aware of. There are many more in northern California than in southern California. They have talked about the use of methadone.

Earlier, I discussed the problem of, in essence, Federal licensure—not a licensure, but an FDA permission—to do methadone maintenance. In addition, in the State of California, as you know, we have a research advisory panel which is convened under California law which must approve each methadone maintenance program. There is a group of seven individuals who very carefully screen each program. If anything, it has been, in my observation, that they are careful to the point of being picky about certain very small issues that seem to me to be petty. Nevertheless, this has been their practice, as far as I know.

Mr. Ed O'Brien, who is the chairman of that committee and a deputy attorney general of the State, continues to be very careful about dispensing permission to do methadone maintenance. They have, at least at the present time, with perhaps 18 or 20 programs going in the State, very close supervision. I, myself, was visited by a neutral faculty member from another university in the State who examined the program. Those programs which have been granted permission to provide methadone have been very carefully scrutinized and as far as I can tell, this scrutiny will continue.

Whether the program is community centered, whether it is sponsored by a private organization, as at least one in the State is, or under any other auspices, methadone programs are carefully screened. I can say this because I am also a member of the advisory committee of the UCLA program, which is a small research program, the Los Angeles County program, and a private program run at a psychiatric hospital in the town of Rosemead.

Mr. WIGGINS. You spoke a moment ago about the absence of drug programs in prisons to deal with an addict population which is very large in the prisons of California. So far as I know, there is no legal prohibition against using LEAA funds for that. Do you have any observation as to why the California Council on Criminal Justice has not recognized that as a priority in developing its State plan for the spending of LEAA funds?

Dr. KRAMER. The only reason that I can conceive of is that no request has been made. I think that the CCCJ—the California Council on Criminal Justice—makes grants only when requests are made to it for funds. I am not aware that they have gone out and solicited such grants.

I think that some of the people in corrections might better be able to answer that question for you.

Mr. WIGGINS. Thank you very much, Doctor, for appearing and testifying.

Chairman PEPPER. Mr. Sandman?

Mr. SANDMAN. Doctor, in your State, you have quite an institution at Corona. Are you familiar with the one there?

Dr. KRAMER. I was the chief of research there for 3 years.

Mr. SANDMAN. Well, I am sorry, I did not hear you testify on that.

Now, as between whether or not someone who is criminally committed enters Corona or San Quentin, for example, what is the difference that is made there?

Dr. KRAMER. The difference is sometimes difficult to determine, except that there are certain individuals who, because of excessive criminality, because of a history of violence, because of certain other exclusionary reasons, are prohibited from entering CRC. Prior to that, it will depend in part on the judge and in part on the individual himself. Either the judge or the district attorney or the man's attorney or the man himself may make the suggestion that someone who has been convicted, either on a misdemeanor or a felony, should be considered for civil commitment.

Mr. SANDMAN. I am not talking about civil commitment. I am talking about criminal commitment. Does it make a difference whether or not it is a felony?

Dr. KRAMER. For someone to go to the addict program?

Mr. SANDMAN. Can a felon who is also an addict be sentenced to Corona as well as San Quentin?

Dr. Kramer. Yes, sir. As a matter of fact, at the last count I made, about 75 percent of the individuals at the institution had an immediately preceding felony conviction which was held in abeyance on the basis of their civil commitment to Corona.

Mr. Sandman. Now, if that is the case and if Corona, as far as I know—that is probably the one that has the finest treatment of people who are inmates in the country. Is that a fair statement?

Dr. Kramer. I think that "finest" is a term which can be interpreted two ways. They are very humanely treated. The thrust of some studies that I did while I was at CRC indicated that in fact, they were not successful. The fineness of the treatment of the people, if it is judged by the result, was unfortunately not very fine.

Mr. Sandman. That is what I want to get to, the result. Compared to other States, I know of no other State that has an institution such as Corona; do you?

Dr. Kramer. Yes; New York Sate has. The New York State civil commitment program was to some extent modeled after the California program.

Mr. Sandman. Are you talking about Daytop Village?

Dr. Kramer. No, sir; I am talking about a civil commitment program. There are 20 or 30 facilities with perhaps 100 or 200 individuals each in them. The individuals are civilly committed by the courts of the State of New York to these facilities. This is a program which is comparable to the California program.

Mr. Sandman. My only purpose in asking the questions about this is there have been others testifying that there should be some treatment given in the prisons for the addict, which of course, at the present time, in most States, there are none. I agree with that statement. However, in your State, at least at one institution, Corona, you do have special treatment that is given to the addict inmate; correct?

Dr. Kramer. Correct; yes, sir.

Mr. Sandman. Now, you have testified that even that treatment, which I understand is very expensive, has not worked.

Dr. Kramer. Yes, sir; that is correct.

Mr. Sandman. Is that a true statement?

Dr. Kramer. That is a true statement.

Mr. Sandman. Now, if that is a true statement, how do we know it is going to work any better if we do put it in the prison system?

Dr. Kramer. My response to Mr. Blommer's statement was—he asked did I know what we should do for felon addicts, addicts who are currently residing in prison; should there be any therapy for them. Perhaps I did not make it clear enough, but my response was I did not know of any therapy within the prison that would favorably affect the outcome of the prison stay. I am not saying that there is no possibility of developing any.

Frankly, I do not know of any therapy available from group therapy through extensive Freudian psychoanalysis, were it to be applied in a prison program, which would help once the man got out of prison. I suggest, however, that there are useful techniques which might be available once the man hits the street again.

Mr. Sandman. Do you feel that this kind of a program would be worth while?

Dr. Kramer. A program within the prison?

Mr. **Sandman**. Within the prison.

Dr. **Kramer**. As far as we know right now, it would be a waste of money. I am not saying that we might not look into the possibility that some experimental programs might not be set up. I think that we should. But to say that we ought to in some sort of massive way provide money for in-prison treatment, there is no evidence that it will help any.

Mr. **Sandman**. If you had such treatment in any of the prisons, such as San Quentin in your own State, it would be somewhat along the line of what you have at Corona, would it not?

Dr. **Kramer**. If I were to do it, I would do it a little bit differently, but I suppose there would be more similarities than differences.

Mr. **Sandman**. Within the prison itself, you could hardly do it much differently; I mean that is the point.

Dr. **Kramer**. Yes, sir.

Mr. **Sandman**. Do you believe that the hardened addict should be separated from other prisoners?

Dr. **Kramer**. I have not thought about that very much and I really do not know. I cannot answer that because I do not know whether they should or should not be.

Mr. **Sandman**. There has been a great deal of written material that claims that addicts when they are incarcerated, their primary conversation deals with drugs and anyone who has not been exposed to drugs who is in that kind of environment is more or less excited to a point where he may try it. Do you not run this danger by mixing the hardened addict with the nonuser?

Dr. **Kramer**. I think that is a very real possibility. Certainly it is the logic of the situation.

Mr. **Sandman**. Do you think it is a real danger?

Dr. **Kramer**. I do not know whether it is a real danger. The logic is there. Whether in fact it happens to any extent, any great extent, I do not know.

Mr. **Sandman**. I yield to my colleague.

Mr. **Wiggins**. I was just curious as to the reasons why programs in prisons would be unsuccessful. I would like to know if it is because of the prison environment or just because of the nature of the beast, that we do not have any way to truly rehabilitate our addicts?

Dr. **Kramer**. California is a very advanced State in regard to its prison system, its penal system. I have worked with many of the people in the State department of corrections. They are far advanced beyond most other States. Among the problems that they face in trying to discuss various issues with their clients is that the matter of the group meetings may influence the man's status in prison. This reservation may be sufficient that any sort of group therapy loses its effectiveness.

One of the bases of any sort of psychotherapeutic interaction, whether individual or in a group process, is the preservation of a kind of absolute honesty that I think is discouraged in a prison setting. It may be that some technique could be developed to encourage it, for example by eliminating any of the prison personnel that have anything whatever to say about the man's status in prison; possibly to bring in individuals who have no administrative powers within the prison and who have no—who agree not to communicate anything that goes on in the groups to the prison authorities.

I think that some efforts have been made, I believe in a Nevada State prison, possibly in one or two California State prisons, where Synanon was brought in. This may conceivably have been useful there.

The point that I would like to make here is that I am not saying that I think it will never be useful, that no technique will be developed. What I am trying to say is that to the best of my knowledge, at this point in time, the techniques that have been tried probably do not markedly influence the ultimate success.

Perhaps I might add to this some studies by Valliant out of the Federal system, suggesting that there is value to a period of imprisonment followed by close parole supervision. In other studies, whether the individual was locked up in prison or in some sort of therapeutic setting was unimportant. The variable that made the difference was close parole supervision afterward.

Some studies in California by Geis from the Department of Sociology, California State at Los Angeles, also suggested that there was no difference, for example, between the ex-CRC, the civilly committed addict, and the felon committed addict. Both of them, one that went through therapy in the institution, one that had no therapy in the institution, went out, both receiving close parole supervision: that if anything, the felon parolees did slightly better than the CRC parolees. There were certain other differences. The felon parolees were slightly older. There were some differences that might account for the slightly better result with the felons, but this suggests that what happened in the institution had much less to do with it than that they were followed by parole.

Mr. Sandman. You talked about a drug called naloxone. I was not here for your earlier testimony. Could you very briefly describe that, comparing it with methadone?

Dr. Kramer. Yes; nalaxone is, of course, a narcotic antagonist. It is not dependency producing. It negates the effect of any opiate used. Of itself it has no agonistic effects, no pharmacological effects on the body alone except to negate the effects of opiates. It is a most promising drug, especially if it were put up in a long-acting form. A point that I tried to emphasize earlier before this committee was that an insufficient amount of work is currently going on to develop such a long-acting antagonist. Work on a long-acting nalaxone is, to the best of my knowledge, at a standstill, despite the fact that occasionally people state that work is going on. To the best of my knowledge, very little, if any, work is going on because of a lack of money.

Chairman Pepper. Did you say, doctor, that according to your information, the research on the development of naloxone is relatively at a standstill in the country?

Dr. Kramer. Yes, sir.

Chairman Pepper. Do you not regard that as a promising drug?

Dr. Kramer. I regard it as a highly promising drug and I regard it as shameful that it is currently at a standstill, particularly considering the crisis that we are facing.

Mr. Sandman. Have you, or anyone connected with you, done anything to promote more of a real job on this particular drug?

Dr. KRAMER. Dr. Max Fink is a colleague, a friend of many years standing. This colleague and friend has devoted hours and hours and days and weeks and time and effort to promote the development of a long-acting form of naloxone and has met with a shameful lack of support.

Mr. SANDMAN. At this point, Mr. Chairman, I wanted to bring that point forward. I heard him say this before. I think that this is something that our committee could certainly recommend, that there be more experimentation done on this particular drug, because as a member of the profession and certainly somebody who knows what he is talking about, he has testified that this thing is at a standstill and yet it is regarded as one of the more promising drugs.

Now, Dr. Casriel mentioned a drug called Perse. Do you know anything about that?

Dr. KRAMER. The only thing I know about it is what I have learned from counsel to this committee.

Mr. SANDMAN. Thank you, that is all.

Chairman PEPPER. Mr. Winn?

Mr. WINN. To change the subject a little bit, Doctor, and I, too, am sorry I missed your testimony, a fact sheet that we have in front of us says that you are well qualified to present material on the psychology of an addict and that much of your experience is quite relevant to areas such as ways to cope with veterans returning from Vietnam who are addicted to narcotics. I am sure that Mr. Murphy, who has done a lot of work in this field, brought that subject up when he was questioning you. Would you expound a little bit on that for those of us who missed your earlier testimony in that general field? Because we are very concerned about these returning veterans.

Dr. KRAMER. The returning veterans are a very serious problem. Among the statements that I have made is included a statement that the methadone treatment is not suitable for individuals who have been using heroin or other opiates for a relatively short time and I think that most of the returning veterans who are addicted fall into this category.

Mr. WINN. Excuse me. What do you call a short time?

Dr. KRAMER. Less than 1 or 2 years.

Mr. WINN. Less than?

Dr. KRAMER. And without a history of repeated failure. Both those pieces are important. And most of the veterans fall into this category, I would assume, which means that if I were to advise as to which approach to take, the sort of approach that I would tend to favor would be the self-help group model—that is, Synanon, Daytop, Gateway model where there is individual confrontation among individuals themselves who have this problem. In addition, narcotic antagonists, when fully developed, may aid in their treatment.

Mr. WINN. Could they do this, in your opinion, after their release from the service and after they have taken these new tests. Could they control this or handle this thing from 30 or 40 veterans hospitals, or in your opinion, do you think it would be a success or a failure?

Dr. KRAMER. That is a prediction that I really can't make.

Mr. WINN. Well, take a guess, because your guess would be twice as good as ours.

Dr. KRAMER. I suspect that the success rate would be modest. I would suspect that certain individuals would not opt to go into a VA hospital for any one of a variety of reasons.

I would also take this opportunity to suggest the possibility that Federal laws might be enacted or amended to permit, through some sort of mechanism, that a fee be paid on behalf of the veteran—not to the veteran himself but on behalf of the veteran—for treatment at varying facilities, which might include community-based programs, might include methadone programs for those who are suitable, that might be applied to any program, which is approved for treatment and to which certain veterans would go.

Mr. WINN. Which might be closer to their home than the veterans hospitals could probably be; right?

Dr. KRAMER. Closer to their home and potentially, more favorable as far as the man himself is concerned.

Mr. WINN. Have you dealt with very many veterans?

Dr. KRAMER. I have not dealt with very many. Among other things, I operate a methadone maintenance program and we have several veterans in that program.

Mr. WINN. From the psychology studies that you are aware of on the Vietnam veterans, do you think that these veterans are going to want to kick the habit when they return to the States? Do you think they are going to want rehabilitation? What do you think their opinions will be?

Again, I am just asking you for guesses, because we have a lot of work to do in this field.

Dr. KRAMER. I would guess that just as soon as the man has spent his accumulated pay and bonuses on heroin and has to pull his first robbery or cash his first bad check, he will be very strongly motivated to seek some sort of help in ending his habit.

Mr. WINN. All right. Do you think that we should have an education program when they are being phased out or being released from the service that would point out what they might expect, or are they so professional on the subject that you do not have to tell them that as soon as your money runs out, boys, and you spend your backpay, you will be going to the streets like the rest of the addicts, robbing and so on?

Dr. KRAMER. I think that it certainly can't hurt, if it is produced in a sensible and not too juvenile way.

Mr. WINN. It would have to be very adult. They get these movies when they go into the service on various things that they are going to be faced with and the probabilities and possibilities. I just wonder, out of curiosity, if we might workup a film that would just lay it on the line, what they might be faced with when they come out, those that consider themselves addicts?

Dr. KRAMER. I certainly do not think it would hurt and it might help.

Mr. WINN. I have never heard it mentioned before, Mr. Chairman. It just sort of came off the top of my head.

Dr. KRAMER. I think a certain amount of education is important, hopefully not just after the men become addicted, but even before. I think that there has been a failure of communication to the troops in Southeast Asia that heroin is as addictive when inhaled as when injected.

Mr. Winn. I do not understand.

Dr. Kramer. That heroin inhaled, sniffed, in powder form, is as addictive as it is when injected.

Mr. Winn. Is that the way they are taking it?

Dr. Kramer. They are inhaling it in powder form.

Mr. Winn. Is this done because they cannot trace the inhaling as well?

Dr. Kramer. No; inhaling because perhaps they do not have the injection apparatus, and because the heroin is so potent that they can easily get the desired effect by inhaling or smoking the heroin.

Mr. Winn. And they do not have the needle marks?

Dr. Kramer. And they do not have the needle marks. It is just the way that the drug culture has unfortunately developed in Southeast Asia; this is the technique of ingestion that the culture has developed. One of the reasons that it has developed this way is that there is the assumption that when sniffed or smoked, heroin is not addicting. In fact, it is highly addicting, almost as highly addicting if not as highly addicting, through that route as through being injected.

Mr. Winn. Well, now, they are getting a more perfect type of heroin in that part of the world, and when they get back to the United States and if they are still addicted and they get some of the junk that is being sold on the streets, they are not going to realize the high that they have had over there. Is that true?

Dr. Kramer. That is correct; unless they do inject it directly and perhaps not even then.

Mr. Winn. Because it is not as good a type.

Dr. Kramer. Because of lower potency.

Mr. Winn. That is what I was trying to grapple for but I could not come up with the words. Well, Dr. Kramer, I appreciate your coming from California to appear before this committee and I think you have given us some new thoughts and some different ideas that the committee has not heard before. I thank you.

Thank you, Mr. Chairman.

Chairman Pepper. Thank you, Mr. Winn. Dr. Kramer, this morning, representatives from the State of New York testified that the State of New York was spending in fiscal year 1972 for treatment and rehabilitation of addicts of heroin and major drugs $186 million. Could you give us a comparable figure for the State of California?

Dr. Kramer. I cannot offhand. I do not know what was included under this umbrella in the statement of the gentleman from New York.

Chairman Pepper. The figure that I gave you excluded law enforcement.

Dr. Kramer. Did it include, for example, the Dole-Nyswander programs, Daytop Village, and so forth?

Mr. Perito. Yes, sir.

Dr. Kramer. I will have to think when I talk because I was not prepared for this; I do not have the figures. I will try to get as many off the top of my head as I can think of.

The civil commitment program in the State of California costs about 14 million a year. The State of California may, to some extent, support some of the methadone programs and some other programs to a rather modest degree through a matching plan in which the State pays for 90 percent of mental health care. I am sorry, I don't know how much is being spent. I would certainly guess that the total sum is far, far less than that being spent by the State of New York.

Chairman PEPPER. Do you regard the treatment and rehabilitation programs for narcotics in California today as adequate to the needs?

Dr. KRAMER. Absolutely not. I do not know of any place in the United States, whether city or State, with maybe one or two rare exceptions—possibly the State of Oregon—in which there is anywhere near adequate treatment for narcotics addiction.

Chairman PEPPER. You have covered part of the question I wanted to ask in your comment to Mr. Wiggins. But I would like to have you state again, what kind of treatment and rehabilitation facilities do you regard as the most desirable? And how widely should they be spread?

Dr. KRAMER. The most desirable in terms of cost effectiveness?

Chairman PEPPER. Yes; in terms of effectiveness in dealing with the problems.

Dr. KRAMER. In terms of effectiveness in dealing with the problems.

Mr. WINN. Excuse me, Mr. Chairman, could we have both, effectiveness and cost effectiveness?

Chairman PEPPER. Yes; give us both.

Dr. KRAMER. I think both can be still put under the same rubric, which at this time, is methadone maintenance.

Chairman PEPPER. Should that be administered by a clinic or some sort of institution or should the methadone be prescribed by physicians or both?

Dr. KRAMER. At this moment in time. I think individual physicians are not prepared to handle methadone maintenance programs. I think that the only kind of exception that I would provide is if we have a single addict who lives somewhere up in Stanislaus County and he is the only addict in town, he should not be required to move down to Stockton to get treatment. I think a special exception for an individual physician caring for a specific patient might be made in such circumstances. But I think that by and large. programs should be run programmatically rather than by individual physicians.

Chairman PEPPER. And should services be rendered to the addict other than just administration of a drug, whether it be antagonistic or detoxifying drug?

Dr. KRAMER. Yes, sir; I think anything less is very minimal treatment. I think that methadone programs or narcotic antagonist programs do need additional services, additional aid, which should be tailored to the individual patient. There are certain individual patients who require very little additional treatment. They get their methadone and they lead their lives quite satisfactorily. The majority do need other assistance, whether it is psychological or job finding or legal or otherwise.

Chairman PEPPER. Now, Dr. Roger Smith, who headed up one of the treatment and rehabilitation facilities in the Haight-Ashbury section, said the same thing you did in substance, although he added it need not necessarily be a public clinic, it could be a private clinic, if properly operated under proper supervision of public authorities. Would you agree?

Dr. Kramer. Yes, sir; I would indeed. We have one such program in California. There are several similiar programs in other States which are privately run, I believe generally on a nonprofit basis, though I believe there may be one or two which are even profitmaking institutions, supported by outside contributions and the patient's fee; yes, sir.

Chairman Pepper. Now, Dr. Smith also stated, as I recall it, that these facilities should be available in almost every community where there was a narcotics problem. When one of the Governors testified here this morning, I believe Governor Carter of Georgia, he said addicts did not want to go across town where they had to get in a bus or a taxi, you get more involved where they are more or less community facilities. Do you agree?

Dr. Kramer. I certainly agree. Some of our patients have to travel three-quarters of an hour each way to come to our program. When they must come very, very frequently, it is certainly an imposition on their time, particularly the ones who finally do get a job.

Chairman Pepper. Now, just two more questions. One is, what can we do to get most of the addicts into the treatment program? Dr. Jaffe told me personally that we would get about 50 percent, maybe, of the addicts into a voluntary program. Would you agree? Has that been your experience? How can we get a larger number of addicts into an effective program?

Dr. Kramer. At this moment in time, I think that were I to guess about what proportion of all long-term addicts, again over a year or two, would come, for example, into methadone or other programs, I do not care which, the overwhelming majority would go into methadone programs. One thing we do not know, we do not know what would happen when we finally get those 50 percent into treatment.

What I find, for example, is that a man who has been unwilling to come into a treatment program sees several of his friends in a treatment program. He has denigrated the value of the program. He sees his friends who are now not going to jail, who are leading decent lives. He then comes and asks for help. I suspect that we might find that larger and larger numbers of addicts will present themselves if we provide effective programs.

One situation may shed some light on this. Because of the support of the Governor of Oregon, extensive methadone facilities were made available in that State. It was estimated that Oregon had between 250 and 300 addicts. They now have roughly 300 patients on methadone. I am not saying that they have all the addicts in the State, but I think this might be a testing ground, a community in which there are a relatively limited number of addicts which might be a microcosm for all other programs. We might be able to learn something from people in Oregon as to how completely people are willing to come into a program when the doors are open and anybody who needs it and is appropriate for this can get treatment.

So far, we have not been able to take care of the addicts that we have.

Chairman Pepper. Would you recommend any kind of law that would require anyone involuntarily to be brought into treatment in a program if he were found to be a heroin addict?

Dr. KRAMER. I believe that I would modify that somewhat. It may, as a last resort, be necessary. However, civil commitment for addiction should not be based merely on the presence of addiction, but should be based also on a degree of addiction which clearly causes the individual to repeatedly violate the law or repeatedly seriously endanger his life and health, a man who has been repeatedly hospitalized with overdoses, someone who has repeatedly been imprisoned for crimes related to his addiction. Commitment should be based on more than mere addiction, more than mere suspicion of addiction.

Chairman PEPPER. This morning, Governor Carter of Georgia told us that his State has a law which authorizes the judge, when a person is convicted of a crime, to give that individual, you might say, a sentence or an adjudication that he must take a prescribed course in respect to that addiction as an alternative to being sent to prison. Does California have such legislation?

Dr. KRAMER. Yes, sir. The civil commitment program, in essence, encompasses that; that is, the person convicted of a crime, usually a felony, occasionally a misdemeanor, will in lieu of execution of sentence, be civilly committed for treatment to the civil addict program. This, in essence, is the same as you described for the State of Georgia.

Chairman PEPPER. We have learned that the Army, if I understand correctly, is instituting a program to test a veteran before he is discharged, a veteran from Indochina, let us say, before he is discharged and perhaps keep him 30 or 60 days after they discover that he is a heroin addict. Do you consider that a sufficient length of time to assure anybody's rehabilitation or a cure for taking heroin?

Dr. KRAMER. It certainly does not assure a cure. There was a meeting last weekend in San Francisco. A representative from the Defense Department was there and I quote only from what I heard him state. This is the extent of my knowledge. The question arose, what if, at the termination of a man's enlistment, addiction is discovered, what do you do? Do you keep him for some prolonged period of time—6 months, let us say—so that a cure is more assured than if you keep him a shorter period of time? This would run into the problem of keeping a man far beyond his enlistment. A good deal of concern would be felt about that by both the men involved and people concerned with a variety of other issues.

Should the man be discharged immediately? In this case, the Federal Government may be accused of thrusting addicted men on society. A period of 5, 6, 7 days is usually sufficient to eliminate the serious withdrawal symptoms. Another 2 or 3 weeks would further help reduce the probability of immediate readdiction.

It does not seem, at the present time, to be an unreasonable request in terms of its being either too long or too short. The representative of the Defense Department indicated that should a longer or shorter period be indicated by future experience, this period might be changed.

This statement seemed to me to be a reasonable one.

Chairman PEPPER. The last question, Doctor. A number of people have mentioned to me that they thought our committee should recommend a program of heroin maintenance to heroin addicts, making two principal arguments:

(1) They were not concerned about the addict, they were concerned primarily about stopping the addict from committing crime.

(2) And second, that that would be the way to get the addict into a central place or to some place where he could be identified and where maybe he could be subjected at least to persuasion to take part in a treatment program. Would you give us your comment on those suggestions that were made to me?

Dr. KRAMER. The experiment which is being proposed in New York City, is an experiment rather than a treatment, the objective of which is, as you said, to bring the man into treatment who would not otherwise come into treatment; it is heroin maintenance only in the sense that the man will be initiated on heroin and after some limited period of time would be transferred to either a methadone program or an antagonist program, a Phoenix House program, or back out on the street if he so chooses.

When I first heard of this, my first response was that it was preposterous. On subsequent reflection, it seemed to me to have a few limited merits. One of the few merits it had was that it might induce a few people into treatment who might otherwise not come into treatment. As a scientist, I would certainly say that such an experiment deserved a trial. But it should be very carefully monitored and the serious disadvantages, very serious disadvantages of heroin maintenance must also be balanced.

I sat down and I tabulated on a double column bookkeeping basis the advantages and disadvantages of such an approach. Nine disadvantages came to mind and I had to stretch a point to find four advantages. I still would suspect that some investigation might be fruitful, even if it shows that it is useless.

Chairman PEPPER. Thank you very much.

Any other questions?

Mr. WINN. Mr. Chairman, I do not want to drag this out and Dr. Kramer has been very generous with his time. But I am intrigued by his idea of a fee, because if we are going to get to this problem fast, the other programs that I have heard mentioned could not take care of the influx that we are going to get.

Do you have any idea, again as a guess, how much of a fee per addict would be needed? Now, I know you have some who have long histories of addiction, I suppose, and they are harder to get off hard drugs than those addicted less than a year.

They are not?

Dr. KRAMER. I was shaking my head because I was thinking of something else.

Mr. WINN. This might be impossible, but I am just wondering are we talking about $100 a person, $200 a person? What kind of fee would we be talking about?

Dr. KRAMER. Well, I would assume that one would be talking on a time-fee basis, so and so many dollars per day, week, month, or year. I think that this would have to be tailored to the nature of the program. On average, for example, a methadone program would cost about $1,000 a year. An inpatient-facility-type program might cost $3,000 or $5,000 on an annual basis, though the individual might not have to remain in the facility for a year. There are some programs which are much more expensive.

If it were an inhouse treatment, at the Langley-Porter clinic in San Francisco, for example, the cost would be $86 per day. I would not suggest that the Veterans' Administration support that sort of fee. But there is a range of fees depending on the program.

Mr. WINN. Well, could the Government, going the other way, subcontract on a fee basis or a contract basis to private clinics and public clinics so much for an individual addict? Could that be a possibility? In other words, there would be an agreement between the Government, the clinic, and the addict?

Dr. KRAMER. Yes; of course. I think some sort of mutual agreement, rather than that specifically between the Government and the clinic, or perhaps with some sort of approval system, the mechanics——

Mr. WINN. It has a lot of possibilities.

Dr. KRAMER. Absolutely.

Mr. WINN. Thank you, Mr. Chairman.

Chairman PEPPER. First, we want to thank you very much, Doctor, on behalf of the committee, for coming here and sharing your vast experience and knowledge with us in our effort to grapple with what I consider one of the most serious problems facing our country today. I imagine you would agree with that?

Dr. KRAMER. Yes.

(Dr. Kramer's prepared statement follows:)

[Exhibit No. 27]

PREPARED STATEMENT OF DR. JOHN C. KRAMER, ASSISTANT PROFESSOR UNIVERSITY OF CALIFORNIA (IRVINE)

[Edited and updated from an article which appeared in the New Physician, March 1969]

Whatever the intent of the Harrison Narcotic Act and other related Federal and State laws and their judicial and administrative interpretations, one of the effects during the last half century has been to obstruct and inhibit the management of opiate dependency by the medical profession. Though the enforcers of the narcotics laws have been subject to most of the criticsm for the state of affairs, their influence would not have been so great had a substantial proportion of physicians demanded that doctors retain their legitimate prerogatives in the treatment of addicts. Through the years some physicians and social scientists have persisted in expounding alternate views. All have been castigated, many have been harrassed and a few have been martyred, mostly for contending that addicts should be treated by doctors, that maintaining addicts on narcotics might be an acceptable management technique and that some officials of Government had misrepresented some of the facts.

The contention that strict enforcement of strict laws has been extremely useful is summed up by the claim that since the Harrison Narcotic Act the opiate addiction rate has been reduced to one-tenth what it was before 1914. This contention is erroneous in several respects. First, the reduction in rate is uncertain because of the questionable nature of most such estimates. Still, if we choose to utilize estimates it is only proper to utilize comparable ones, and if comparable estimates are used we find the reduction in rate to be closer to one-third than to one-tenth. Second, if one considers who the addicts are, what becomes evident is that though opiate addiction has diminished among middle-class, middle-aged whites, it has actually increased among people who are young, lower class, black or brown, and male. Third, in the course of the years opiate addiction, once a moderately serious personal problem with moderate social significance, has become a personal catastrophe and a social nightmare. And lastly, we must observe that we have never tried moderate enforcement of reasonable drug control laws. We went from a time just before World War I when anyone could purchase any opiate freely, over the counter, to a time just after World War I when for example, a physician was arrested, prosecuted, and convicted for prescribing one tablet of morphine and three tablets of cocaine to an addict who was suffering from withdrawal symptoms.

There may well be some optimum combination of legal enforcement and medical control over drug abuse problems. From 1914 to 1920 we went, in one bound, from too little control to too much. And subsequently we erred still more. Observing that drug dependence was not being adequately controlled, and was in fact getting worse, we increased the penalties, assigned more police to drug enforcement, and moved still further from an optimum balance of legal control and medical management.

In the last 10 years though some changes have taken place, it has not been without opposition. For example, Synanon has been harassed by neighbors and local officials who felt that their presence would be dangerous and corrupting, and methadone maintenance programs have been opposed by enforcement officials and some physicians who could not back down from a position held for 40 years, that maintenance for addicts was unethical, immoral, unworkable, and illegal. Other kinds of treatment programs, though less actively opposed, are often viewed by the hardliners as pitiful attempts on the part of do-gooders to cure what they "know" to be an incurable vice. Often acceptance of new programs by the hard-liners is conditional upon the guarantee that they will not be used by addicts to escape any long mandatory minimum sentence which has been imposed.

Nevertheless, new programs have been initiated and more are on the way. Some are under medical auspices, others are run entirely by religious groups or ex-addicts. They are still inadequate in number to accommodate all the potential clients. It is impossible to say what proportion of drug users will ultimately use such programs when they become available; traditionally much pessimism is expressed in regard to opiate addicts' utilization of such programs, yet those programs which have been established in recent years, though differing from each other in approach and philosophy, have uniformly been encouraged by the willingness of many opiate users to accept help and the substantial numbers of them who have benefited from this help. Though different in approach all the new voluntary programs share at least two common characteristics: respect for the opiate user as a person, and an enthusiastic optimism that he can be helped.

Change will be slow. Though professional workers in the field recognize the need for reform, there is little doubt that most Americans, knowing no other way, accept and endorse current laws and policies, and there are influential and concerned people who are resistant to nonjudicial approaches to drug-abuse control. It is one thing for the U.S. Supreme Court to declare addiction a disease but quite another for it to be handled as such.

Part of the problem is that it differs from disorders generally accepted as diseases. The major conceptual obstacle to accepting addiction, or better, drug dependence, as a disease is that it is usually self-initiated and self-sustained. Other diseases seem to be thrust upon the victim from the outside. Yet there may be less willfulness in becoming drug dependent than it seems. Initially the motivating force may be curiosity or proving one's boldness or for social acceptance or as a protest against the conventions of the larger community; foolish perhaps, but not criminal. Once initiated, the drug use may be self-perpetuating. Dependency-producing drugs are by definition strong reinforcers and the desire to renew the drug effect can be powerful enough to carry the user beyond questioning the propriety or the legality of his actions.

Whether or not it is more nearly an illness or more nearly a crime, a pragmatic society which views a particular form of behavior as threatening will take action to eliminate, or at least minimize the detrimental effects of the behavior. Initially in a mood of puritanical rectitude and subsequently in a mood of panic, our society chose a course of punitive prohabitionism.

THE SOCIAL PHARMACOLOGY OF OPIATE DEPENDENCE

Currently, opiate dependence is equated with the regular intravenous use of heroin; though this is now the most common form of opiate dependence in the United States, other patterns of opiate use have been favored in other places and at other times. Opiates exist in several forms; there are several routes of administration; the life style and social class of the user may vary; and the social acceptability of drug use may differ. All of these variables may be combined in different ways and produce vastly different consequences to the user, to his immediate social group, and to the larger society.

California law, for example, lists 72 different opiates from crude opium through semipurified products to purified, semisynthetic and synthetic preparations. The form of the drug, to some extent, dictates the way it will be used. Crude opium is usually smoked though it may be eaten, and is less likely to produce a disabling dependence than are the "white drugs" like morphine or heroin.

Opiates may be ingested in several ways. Oral use is simplest and widely used, but it has several disadvantages as far as users are concerned. Onset of effect is slow and the surge of euphoria (or relief) which characterizes the more direct routes, is absent. Some opiates lose potency orally, and crude opium is rather nauseating both because of its central effects and its direct irritant properties. Because rather large quantities of the drug can be taken orally it is possible to develop considerable physical dependence by this route.

Snufling powdered heroin or inhaling the fumes of vaporized heroin has had periods of popularity. Evidently it is now a primary technique of ingestion among our men in Southeast Asia who erroneously believe that they cannot develop a dependence by using this technique.

The technique of "smoking" opium is unlike that of smoking tobacco. The opium itself does not burn, rather it is vaporized. Crude opium is specially prepared and then is made to adhere to the small bowl of an opium pipe which is heated by a flame, thus vaporizing the opium which is then inhaled. Though serious dependence may have occurred among opium smokers, this pattern of use in the social context of Eastern and Southern Asia seems to have been more benign than has generally been depicted. Since the outlawing of opium in most of Southeast Asia following World War II, the alternate which took its place, most noticeably in Hong Kong, has been the inhalation of the vapors of a heroin-barbiturate combination. This pattern of ingestion of almost pure heroin can create a dependence more profound than that caused by opium smoking.

The parenteral use of opiates for several reasons is the most damaging. Because it is the most efficient and expeditious technique of delivery, even very small amounts of drug produce effects. Because of the immediacy of the effect the act of injecting is clearly and unquestionably related to the pleasure (or relief) which the injection provides. Add to this the hazards of overdose and nonsterile technique and the picture is complete.

Though the life of regular users is generally depicted as one of rather complete degradation, this is not necessarily the case. Users can and do, particularly in other times and places, have legitimate occupations which are sufficient to supply their drug needs and they often carry on their lives with reasonable efficiency. In other instances the drug use may produce such lethargy that they are not usefully employed though they may not be involved in illegitimate activities other than the simple possession and use of drugs. In most instances in the U.S. opiate users must engage, at least in part, in some illegitimate activity in order to secure sufficient funds to support the habit.

As has been mentioned above, the "typical" addict in the United States currently is a heroin user who is young, lower-class, male, and black or brown, though as this committee is aware, even this pattern is changing to include more white, middle class youth. Prior to 1914 the typical addict was middle-aged, middle-class, female, and white. There is a good chance that she was quite respectable and that her "vice" was known only to her pharmacist, her doctor, and her husband. Elsewhere the characteristics of the typical addict vary even more. In Hong Kong today addicts are mostly middle-aged male laborers, while in some societies, the use of opiates was the prerogative of the wealthy and powerful.

Obviously, societies differ in their acceptance of drug use. Still, even where no laws exist there is usually some social condemnation, particularly in instances where drug use comes to dominate the individual's life. Legislation controlling drug use is a relatively recent historical phenomenon, though there have been occasional examples in the past of judicial control of drugs. Though most nations have enacted control laws, enforcement is often intermittent and selective. In many Western nations, most notably the United States, both the legal and social sanctions against certain forms of drug use are enforced vigorously. Obviously, the psychological meaning and the social consequences as well as the kind of drug use, the pattern of use, and even the route of ingestion may be determined by these social events independent of the psychological pattern of the user and the pharmacology of his drug.

For a variety of historical and social reasons we have today in the United States about 150,000 to 200,000 people who are currently or who have recently been dependent on opiates. Many are incarcerated in prisons, jails, or other institutions. Some who are free are not currently engaging in the illegal use of opiates for any one of a variety of reasons, including personal determination, religious conversion, pharmacological blockade, close parole supervision, membership in an anti-drug organization, or the substitution of other drugs. Different communities have different programs, though many have none at all. The only "treatment" modality available everywhere is prison or jail.

Let us examine several of these approaches to the treatment of opiate dependence.

NARCOTIC MAINTENANCE

It has long been observed that people can function for prolonged periods without disability or serious toxic effect while receiving regular daily doses of opiates. When such a regime is carried out with the acquiescence of the patient and under careful supervision of a knowledgeable and ethical physician, the patient feels normal, acts normal, and seldom seeks out supplemental sources of drugs.

There are instances in which maintenance programs have not worked well. The fault here lay in one or several errors in management. Among the errors have been treatment of a patient whom the doctor does not know adequately; allowing the patient to determine his own dose of the drug; or supplying the drug in such form and quantity that it can easily be resold or misused.

Opiates have pharmacologic characteristics which permit a maintenance approach. Though overdose can cause death, sublethal doses have negigible toxicity. Maintenance even on substantial doses of opiates produces sufficient tolerance so that neither motor nor intellectual functions are disrupted, unlike barbiturates and alcohol which will induce persistent ataxia and lethargy when used in high regular doses or stimulants which will ultimately induce toxic psychosis if so used.

In a number of countries (Britain is not the only one) physicians have been permitted, tacitly if not officially, to prescribe opiates on a maintenance schedule for patients who have a substantiated history of intractable addiction. In Great Britain this permission has been official, but there, during the mid-1960's a problem arose. One physician in particular, and perhaps an additional half-dozen to a lesser degree, were prescribing heroin to addicts in phenomenal quantities, far beyond the doses required for maintenance. The result was that some addicts sold their excess drugs for profit to previously non-users of opiates. It is yet to be determined if these physicians were motivated by stupidity, perversity, or wickedness.

In response to the abuse of their privileges by these very few physicians, the British Government removed from physicians as a whole the prerogative for prescribing heroin and cocaine to drug dependent people and invested it in a few doctors specially designated to handle these cases. Curiously, morphine and opiates other than heroin may still be generally prescribed to addicts by any physician.

The British have not abandoned the "British System," they have merely modified it to minimize the likelihood of improper medical practices. It is possible that still further restrictions on the British physicians' prerogative to prescribe for addicts will be necessary, but it seems unlikely that they will abandon careful drug maintenance as a useful technique for the management of opiate dependence. In addition the British are exploring other avenues for the rehabilitation of addicts.

From a pharmacological point of view there are some drawbacks to the use of morphine-like opiates in a maintenance program, principally their short duration of action. The necessity to repeat dosage three or four times a day makes practical management difficult and tends to keep the patient involved with his drug and continuously aware of cyclic variations induced by a rapidly metabolixed drug.

Dole and Nyswander, in their pioneering studies, found that methadone, a synthetic whose chemical structure is slightly different than that of the naturally occurring opiates, and pharmacologic characteristics which made it superior for maintenance:

(1) It is effective orally and can be mixed in a carrier (e.g., orange juice) which makes extraction of the drug difficult.

(2) Metabolism and excretion are slow enough that a single daily dose suffices to produce the desired maintenance level.

(3) Taken orally, it has much less tendency to produce euphoria or drowsiness than morphine-like opiates.

(4) As it is used in this program it blockades the effect of other opiates which might be taken.

(5) It suppresses the desire for opiates. Patients cease talking or even dreaming obsessively about drugs.

(6) No notable toxic effects are encountered. There is, for example, no interference in menstrual function and women on this program have conceived, and while still receiving methadone carried to term and easily delivered healthy babies. At birth there was minimal evidence of withdrawal symptoms in the infants and no active thereapy was required.

The results of this approach so far have been startlingly good, and others who have used it have had similar results. Though use of methdone is the sine qua non of the program there is recognition that patients have other life problems and efforts are made to assist them. Psychotherapy is not considered essential though it is available if necessary. Freed from the need for the cycle of hustling, scoring, fixing, nodding, and hustling again, blockaded from feeling the effects of a shot of heroin which he may try once or twice to prove to himself that a blockade really exists, the patient can now proceed with the ordinary business of reconstructing and living his life.

In Dole and Nyswander's series (871 as of Mar. 31, 1968) only 14 percent of the patients had left the program, usually because of serious difficulties with alcohol or other nonopiate drugs, because of arrest, or because of persistent disruptive behavior. All the patients are voluntary and certain selective criteria are used; the selective criteria, however, are intended to insure that the subjects have had intense and repeated periods of addiction.

Opposition to methadone maintenance has been waning because the results of the programs continue to be so impressive. The argument that this is merely substituting one addiction for another seems inconsequential when one considers the alternatives, disease, death, degradation, and prison, which await most addicts in our society. The fact that methadone is dependency-producing is irrelevant if we determine that long-term treatment is essential. We insist on similar long-term use of anti-psychotic drugs in hundreds of thousands of psychiatric patients, and anticonvulsants in equally large numbers of epileptics, which equally do not "cure" but allow the patient to lead a life which is far more satisfactory than it would be without the drug. And from all evidence so far, methadone appears to be less toxic than either the antipsychotic or the antiepileptic drugs.

It is of critical importance not to equate a maintenance program, whether with methadone or other opiate drugs, with the indiscriminate distribution of opiates, much less the "legalizing" of them.

It seems probable that a large proportion of our addicts will, in the future, be controlled through this approach. The only tragedy will then be that we did not earlier heed those few brave souls who have persistently advocated such an approach for the last 50 years.

OPIATE ANTAGONISTS

Some substances with morphine-related chemical structures have the effect of negating some of the pharmacological effects of other opiates. Nalorphine (Nalline) and levallorphan (Lorfan) are examples of this group of drugs which are currently in the pharmacopeia and are used primarily to treat opiate overdosage.

The phenomenon of opiate antagonism has been used in two different ways in the management of opiate dependence. In one, the fact that small doses of nalorphine will counteract the miotic effect of most opiates is used as a screening test for opiate use. Given to a person who has not recently used an opiate the nalorphine itself will produce miosis. The person to be screened is examined under conditions of fixed light intensity and his pupil size is measured. He then receives an injection of 3 milligrams of nalorphine and his pupil size is remeasured 20 to 30 minutes later. Pupillary construction indicates a negative test while dilation is positive. In positive or questionable tests urinalysis for opiates is requested since it is more reliable than the screening test. For the most part this type of screening is used in parole and probation programs.

More pertinent to this discussion is the use of opiate antagonists as a therapeutic tool. Cyclazocine, and more recently naloxone, both of which are investigational drugs, have been used on a regular daily dosage schedule in several experimental treatment programs. In the hospital the patient receives the medication in gradually increasing doses till a daily maintenance level is reached. As an outpatient he continues to receive the medication regularly. Should the patient use an opiate, it will have either no effect or a markedly diminished effect, depending on dose and time relationships between the cyclazocine and the opiate. Unlike disulfiram (Antabuse) which produces unpleasant and potentially dangerous effects when the patient treated with it takes alcohol, use of an opiate antagonist results in an absence or diminution of narcotic effect when the patient takes an opiate.

Though clinical experience with narcotic antagonists used in this way has been limited, results have been encouraging though not as startlingly successful as with methadone maintenance. Besides the simple pharmacological blockading effect, the use of these medications may serve as a nidus around which a patient can be engaged in a program. In addition, when a patient tries opiates from time to time, as he may, and fails to get high, or even feel any effect from the heroin, this may tend to induce extinction of drug-seeking behavior.

There are both parallels and differences between the maintenance treatment using cyclazocine and that using methadone. Both tend to block the effect of opiates, and once past the stage of induction neither has significant effect on mood or behavior. It appears that maintenance treatment on either regime may be prolonged though ultimate discontinuation of medication may be possible. Toxic effects have been more pronounced with the antagonists than with methadone. Nevertheless, fewer objections have been voiced against use of cyclazocine for maintenance than against use of methadone. The objections appear to be based more on moral grounds than scientific ones. Methadone is classed as an "opiate" and is therefore considered by some to be morally objectionable, while cyclazocine and naloxone are "opiate antagonists" and therefore morally pure. Neither has produced "personality deterioration" as had been fearfully predicted, and both may continue to prove useful, each in its own way, in aiding the rehabilitation of opiate-dependent people.

THE THIRD COMMUNITY

It has been undiplomatically stated that religiomania is a cure for narcomania. This observation is valid, particularly if one defines religiomania broadly as the devout acceptance of clearly defined tenets of a faith and its principles of behavior, and persistent participation in its prescribed rituals. The faith and its practice will usually encompass all the life activities of the communicant and in its practice he will have the opportunity for both penitence and ecstasy. Obedience is part of it as is the sense of being an accepted member of the congregation, however lowly, and thus possessing an attribute not possessed by anyone outside the sect.

The requirements can be fulfilled not only by formal fundamentalist religious groups such as Teen Challenge but by such an organization as Synanon and other programs which have been modeled on it. Because Synanon does not have a deity (though it may have a prophet) it may be improper to call it a religion. Instead it might be called a "third community," the first being the drug-using community and the second the "square" community.

Though some addicts can discontinue drug use and reenter the square world, many cannot make this transition easily. If their past is known they may be rejected; or even if not rejected they may find it impossible to share the interests and life styles of the squares though they may want to depart from the world of the users. Returning to the world of users, they inevitably find leads to readdiction, hustling, and everything else that makes up "the life."

The "third community" is made up of drug users who have decided to remain abstinent and who join together to form what can be described as a commune, or perhaps a synthetic, extended family, governed autocratically. They live and work together, develop and alter rules of interaction and gather into communication groups for the purpose of learning about themselves and each other and telling what they are and how they feel. Though living apart from the larger community they do not ignore, nor are they ignored by it.

Though Synanon evolved from Alcoholics Anonymous and the Therapeutic Community, it is not a simple derivation of these approaches. It is far more encompassing of the lives of its members than AA and unlike the usual construction of therapeutic communities there isc no staff-patient dichotomy. Though there are ranks and privileges the hierarchy is continuous and anyone can, theoretically, hold any position.

Other third community groups modeled after Synanon differ from it in one way or another, most prominently in the expectation in the other groups that the person will ultimately graduate and reenter the square community, and because of his personal growth will be able to manage his life satisfactorily and without recourse to drugs. Though accepting the idea of the departure of graduates, the Synanon ideal is to retain members in the group indefinitely and to expand steadily, drawing in more and more members, squares as well as addicts.

Many people have benefited from their experiences in these programs, and many have not. For reasons which are sufficient for them, Synanon does not record the number of people who departed and returned to their former ways. In most instances they are no worse off for the experiences.

"Gateway" in Chicago and "Daytop Village" in New York have been modeled after Synanon. Though governmentally supported and responsible to a professional board these programs are run by the addicts themselves and thus avoid the "we-they" split which can obstruct other programs.

It is mandatory to acknowledge that Synanon is a remarkable creation, most remarkable because it flew in the face of the accepted idea of the intractability of addiction; they refused to accept that notion at a time when almost everyone else did.

CIVIL COMMITMENT FOR ADDICTS

California in 1961 and more recently New York State and the federal government have initiated and implemented programs for the civil commitment of narcotics addicts. The thrust of these statutes is to maximize the number of addicts committable and minimize their opportunity to choose to leave.

The roots of these commitment laws can be traced to the Federal narcotics hospital in Lexington. In recounting the initial expectations for that institution Isbell writes * * *

> Drug addicts were to be treated within the institution, freed of their physiological dependence on drugs, their basic immaturities and personality problems corrected by vocational and psychiatric therapy, after which they would be returned to their communities to resume their lives. It seems to have been tacitly assumed that this program was the answer and would solve the problem of opiate addiction. Within a year it was apparent this assumption was wrong * * *
>
> * * * a more adequate treatment program (required):
>
> (1) Some means of holding voluntary patients until they had reached maximum benefit from hospital treatment.
>
> (2) Greater use of probation and parole. * * *
>
> (3) Provision for intensive supervision and aftercare. * * *

Isbell goes on to say that the reasons why these problems were not solved were complex.

In 1961 the California Legislature enacted laws establishing a commitment program for addicts which was designed to accomplished those objectives recommended but never carried out at Lexington.

Though the program has been useful for a small proportion of those committed, for the majority it has proven to be merely an alternative to prison. The majority have entered a revolving system of admission-release-admission-release, and spend a majority of their commitment incarcerated in an institution which resembles a prison more than it does a hospital.

Commitment, strictly speaking, is not a treatment technique, it is a legal technique to bring an unwilling patient into a treatment situation. Whether the treatment is effective or he receives any treatment at all depends upon the program offered.

An important consideration in evaluating civil commitment for addicits is the fact that many people in positions of authority see commitment primarily as a means to get the addict off the street. Their justification for this position is that opiate dependence, particularly heroin addiction, is a life-threatening, communicable disease and it is therefore morally justifiable to incarcerate addicts, to place them in quarantine, so that they will not infect others. The soundness of this position is arguable both on constitutional and epidemiological grounds.

It is unlikely that all compulsion can be removed as one aspect of public policy in the management of opiate dependence. The presence of drug control laws is a primary motivating force behind the entrance of addicts into voluntary programs. We must provide sufficient useful voluntary approaches and back them up by involuntary programs for those unable or unwilling to receive help from the former, but commitment programs for addicts like any other medical program should be flexible, imaginative, and unhindered by excessive legislative and administrative restrictions.

COMPREHENSIVE COMMUNITY PROGRAMS

It is generally conceded that traditional psychiatric techniques have not been useful in the management of opiate dependence. In a psychoanalytic frame of reference symptoms are considered to be the behavioral or somatic representations of an underlying intrapsychic conflict. Once the conflict is resolved or reduced to manageable proportions, the symptoms will diminish or disappear.

This conceptual model fails to account for two different issues, either or both of which may play a role in people who abuse drugs. First, though intrapsychic determinants may play a part in whether a person uses drugs, other circumstances such as drug availability, subgroup attitudes, peer pressures, and plain chance are very often more important. In other words, in some individuals, there may be no serious underlying conflicts, though there may be considerable conflict with the community. Second, whatever the original determinants of drug use may be, the symptom, dependency on drugs, can become so central an issue that it, so to speak, assumes a life of its own, and even solving the under lying conflicts may have no influence on the drug dependence itself. An analogy may be drawn with a depressed person who in an attempt at suicide breaks his neck and becomes paraplegic. Psychotherapy may relieve his depression but will not restore function to his legs.

Because drug use has been invested with such great importance in our society (an importance it did not always have) it is assumed that the intrapsychic events which cause, or contribute to it, are of equal magnitude. Hence the view, that since drug use potentially subjects the person to such serious consequences, the psychological problem he has must be equally big. Experience with drug users does not validate this view. Some do indeed have clearly definable psychiatric problems, but many do not. Where it is sought, some subtle psychiatric defect can always be found, as has been the case with addicts. Further investigation may clarify this question. In the meantime a functional approach, handling the symptoms, educating and giving practical assistance as well as offering psychotherapy in selected instances seems desirable.

To this end, the Federal Government through the NIMH has been offering support for comprehensive, community-based treatment programs for narcotic addiction. It has become evident that programs of limited scope functioning alone, whether a hospital, an outpatient clinic, or a social service agency, are of limited effectiveness. At different times an addict may need different services, and to preserve continuity of treatment it is most reasonable for all services to be available under the auspices of a single organization. Thus, the comprehensive drug addiction centers are expected to provide, at a minimum, such services as:

(1) inpatient treatment, including withdrawal,
(2) outpatient services,
(3) aftercare services; for example, vocational and educational programs,
(4) partial hospitalization services (day hospital, night hospital),
(5) preventive services: Consultation, education, and community organization programs, and
(6) diagnostic services, including drug detection techniques.

These programs are also expected to provide ongoing evaluation both of the program itself and the nature and extent of drug use in the community it serves. Special techniques such as the third community approach, narcotic blockade techniques, the use of ex-addicts as staff, or other innovations are acceptable and are encouraged.

The Federal Government should prepare to fund treatment programs and training programs for treatment staffs as well as certain specific urgent research.

Massive application of the methadone maintenance treatment should be the keystone of the treatment effort. In methadone programs ancillary services should be supported as well. Particularly in areas where extensive addiction exists comprehensive programs and abstinence programs should receive substantial assistance.

One or several training centers are necessary to prepare staffs for these programs.

All federally sponsored programs must be required to collect data on their results and experiences in order that the task can be accomplished quickly and effectively.

Development of long-acting narcotic antagonists may provide an important advance in treatment, not only of longstanding addicts, but more particularly for those with a short history of addiction or even a nonaddicted population at serious risk.

And lastly, development of a longer acting form of methadone will help to reduce the risks of illicit diversion.

Other researches which may discover more fundamental psychologic and physiologic aspects of the addiction process deserve support but currently do not have immediate applicability.

Chairman PEPPER. We have now concluded what I consider to be one of the most exhaustive examinations of the multiple aspects of the drug problem ever undertaken by a congressional body. The information we have collected in this series of hearings, which began in April, will give the members of this committee an opportunity to review and consider the testimony, ideas, and recommendations of some of the most thoughtful men in America on this subject. I can assure you that we will use this wealth of information in preparing a series of recommendations to the Congress that will outline a realistic approach to a massive and effective drug research, treatment, and rehabilitation program.

It has taken this Nation far, far too long to accept the severity of the addiction crisis confronting us. It is my firm conviction that we cannot permit ourselves the same leisure in devising solutions to the problem. But we must guard against accepting any pat or simple solutions that claim universal applicability. Drug addiction is a multicausal phenomenon, and the solutions to it will be equally complex. It is an all too human fault to fasten upon an easy solution, so we must redouble our guard against such oversimplification. Just at a time when many people believe that methadone is the answer to heroin addiction, three eminent doctors told this committee about an entirely new type of drug—the antagonists, nonaddictive drugs which curb an addict's craving for heroin. But even these drugs when perfected will not be the final solution to the problem. So we must continue to search, to question, to experiment. And we must do so aware that we will not always succeed, aware that we are engaged in a lengthy struggle. But with the necessary commitment, we can resolve the drug addiction crisis in America; and we can—and must—do it before we lose an entire generation of young Americans.

If there is nothing further, I declare this hearing concluded.

(The following material was received for the record:)

[Exhibit No. 28]

STATEMENT ON BEHALF OF S. B. PENICK & CO., MERCK & CO., INC., AND MALLINCKRODT CHEMICAL WORKS

This statement is submitted on behalf of S. B. Penick & Co., a division of CPC International, Inc., Merck & Co., Inc., and Mallinckrodt Chemical Works. These three companies are the only licensed companies in the United States which import opium into this country for the production of certain opium derivatives in bulk chemical form. These products are sold by the three manufacturers to authorized pharmaceutical manufacturers, hospitals and pharmacies for medicinal uses.

We understand that this committee, as a part of its current investigation of the heroin problem and means of combating it, is considering a recommendation for an immediate ban on the importation of medicinal opium into the United States. This is apparently viewed as the first step in an effort to eradicate opium cultivation in all parts of the world.

It is our belief that this proposed ban, however well-intentioned, would have no positive effect on heroin supplies in the United States or elsewhere, now or at any foreseeable time in the future. Furthermore, such a ban would adversely affect the health and welfare of many people who require treatment with drugs derived from opium.

There is a simplistic appeal to the theory that elimination of the legitimate importation of opium would contribute to the elimination of all opium growing and hence to the elimination of heroin. The theory necessarily is based upon these premises: first, that medicinal preparations containing opium derivatives are unnecessary to medical practice (so that we would not be disadvantaged by a ban on opium imports); second, that other countries will be inspired by the U.S. action and will follow this lead and ban all use of opium derivatives; third, that in the absence of a legitimate market all opium cultivation will then be illegal; and fourth, that illegal opium poppies can then be readily detected and eradicated.

The remainder of this statement will demonstrate the fallacy of this thesis.[1] Initially, however, it may be useful to describe briefly the existing legal channels for the importation and processing of opium in this country.

1. None of the heroin used in the United States is attributable to the legitimate importation and processing of opium.

Annually, in November, each of the three opium manufacturers provides the Bureau of Narcotics and Dangerous Drugs with estimates of its opium requirements for the next year. Each company then receives an important quota from BNDD and begins negotiations for purchases with the governments of India and Turkey, the only countries which supply the legitimate industry in the United States. All shipments are made through the port of New York and are accompanied by armed guards. Upon arrival, they are cleared through Customs, loaded at the pier into a sealed trailer and moved under guard to the production plant of one of the three manufacturers. The shipments are unloaded under the guard's supervision into an electronically-protected vault and sealed by a Customs official. Subsequenty, sampes are removed for testing by the Government to determine morphine content. These tests permit BNDD to ascertain the exact quantity of derivatives which will be obtained and which must be accounted for by each of the companies. Access to the plants is limited to security-cleared personnel.

The companies produce no heroin for sale; the importation, manufacture or sale of heroin in the United States has long been prohibited. Those bulk opium derivatives which the companies are permitted to make may be sold only to authorized purchasers who present an order form supplied by BNDD. Completed order forms are submitted to the Bureau to enable the Government to follow all opium derivatives through all stages of distribution in an unbroken chain of accountability. Each firm must maintain continuous inventories and file detailed quarterly reports with the Bureau showing the exact amount of raw opium on hand, the amount used during the quarter, quantities in process and finished materials on hand.

Any diversion from this tightly regulated system, which is based upon laws initially enacted in 1909, would be immediately apparent to both the Government and private industry. In fact, there have been no reported instances of legally imported opium being converted into heroin for illicit used. Thus, the legitimate supply of opium which enters this country subject to these controls is in no manner related to the ever-increasing supply of illicit heroin within the United States. The heroin that enters this country enters illegally, smuggled over the borders and through Customs.

II. There are presently no adequate substitutes for codeine, the principal opium derivative.

The principal substance derived from opium is codeine. Codeine alone accounts for about 90 percent of the total production of the plants of the three U.S. opium processors. Additional derivatives, such as morphine, papaverine, narcotine, thebaine, and nalorphine, are also obtained, but in relatively small quantities. Most of these products are used in the formulation of numerous medications having analgesic (painkilling) or antitussive (cough-suppressive) properties.

This committee in its second report ("Heroin and Heroin Paraphernalia," H. Rept. No. 91–1808) released in January of this year, states (p. 59):

Since the weight of informed scientific opinion is on the side of those who argue that there is no longer need for the opium poppy because we now have synthetic painkillers, our committee has recommended that Congress outlaw the importation into the United States of all cultivated opium and its byproducts.

---

[1] The just-released (May 27) Report of the Special Study Mission on the World Heroin Problem, headed by Congressmen Murphy and Steele, contain 19 recommendations, none of which contemplates a ban on legitimate United States importation and processing of opium. To the contrary, Recommendation No. 11 (p. 38) is that "the Congress consider legislation which would ban the manufacture, distribution, sale or possession with intent to use drug materials for illegal purposes" and Recommendation No. 4 (p. 37) is that "the U.S. Government underwrite an accelerated research program to find a nonaddictive substitute for opium, which continues to have important medicinal applications."

We think it possible that when it wrote those words, the committee was thinking of morphine. Indeed, a fair reading of the report as a whole suggests that the committee may have been unaware of the medicinal importance of codeine.[2] As will be seen, the two substances differ markedly in their properties, the medical usages to which they are put, and the availability of synthetic substitutes for those uses.

A. Morphine

Morphine, classified as a strong analgesic, has for years been the standard drug employed in the treatment of patients suffering extreme pain—as in the cases of terminal cancer; biliary, renal, or ureteral colic; or coronary occlusion. It is used frequently as a last resort when other medication is no longer effective.

Although this committee seems to have written off morphine as a needed painkiller because, it says, the search for synthetic substitutes has been successful (second report, p. 36), respected medical and scientific authorities still acclaim morphine as best suited for certain applications.[3] Furthermore, this committee has recognized that all the high-potency synthetic drugs appear to share with morphine the characteristics of producing dependency and addiction in some recipients (second report, p. 36).

Whether morphine is for all purposes replaceable today by the newer synthetics remains a question as to which experts differ. Certainly it is a fact that morphine production and sales have fallen sharply in this country. At least, as several witnesses have already suggested to this committee, prescribing physicians should not be deprived of morphine until the various substitutes have been fully evaluated and the medical profession has been made fully aware of their availability, potential, and possible limitations.

B. Codeine

Codeine is classified as both a mild analgesic and as an antitussive. It is one of the oldest medications in use today and, alone or in combination, is one of the most widely prescribed of all drugs. In contrast to morphine, U.S. consumption of codeine has steadily increased—from approximately 5,000 kilograms per year in the early 1930's to approximately 30,000 kilograms in the past few years. Codeine consumption in other countries has grown at an even faster rate.[4]

Codeine relieves pain of varying intensity up to and including that requiring morphine. It is generally considered the most effective of the mild analgesics. The fact that it is effective in a wide dosage range renders it a uniquely flexible and versatile drug for the treatment of pain in a great variety of conditions such as neuralgia, colic, dysmenorrhea, postpartum and postoperative pain, arthritis, and phlebitis. Because of its relative safety, codiene is the best known narcotic type of analgesic. It is generally the first analgesic thought of for moderate to severe pain, as it can be administered for relatively long periods without undue fear of addiction.

In addition to its painkilling properties, codeine is a potent antitussive. In this respect, its properties are unique, affording not only antitussive but also analgesic and mild sedative action.

Whatever the merits of morphine, we know of no authority that suggests synthetics are yet fully capable of replacing codeine. Dr. Seevers, testifying before this committee in April in answer to committee counsel's question whether we now have a single drug which will substitute for codeine, replied that while the search for a codeine substitute has been one of the primary aims of industry in the last decade, an effective substitute has not yet been achieved. Similarly, Dr. Brill testified that there is yet no synthetic which will substitute completely for codeine. It is, he said, a drug that has a combination of qualities that are not easily mimicked. In response to a question from Congressman Steiger, Dr.

---

[2] For example, the report has a separate subchapter (pp. 35-36) on "Synthetic Analgesics for Morphine." There is no comparable discussion of synthetic substitutes for codeine. Similarly, its recommendation No. 2 (p. 47) is that "Congress should outlaw the licit importation of opium and morphine." To the best of our knowledge, no morphine has ever been imported into the United States.

[3] Recent statements on morphine by such authorities, including Dr. Jerome Jaffe who testified before this committee on problems of addiction on Apr. 28, 1971, are collected in an appendix to this statement.

[4] See p. 10, infra.

Brill stated that on a scale of 1 to 10, with codeine at 10, he would rate the known cough-suppressant substitutes for codeine at 2 or 3. Although not questioned on the subject, Dr. Eddy, who also appeared before this committee in April, has written that "codeine serves a need which is not presently met by other substances."[5]

Rather than burden the text of this statement with additional expressions by experts in this field, we have noted several in the appendix. These views indicate that codeine is generally recognized by medical authorities as superior for both analgesic and antitussive uses to the variety of synthetics presently available. To ban its use, therefore, would result in a rergrettable lowering of the quality of medical care throughout the United States.

The American people should not be deprived of these valuable medicines unless it can be clearly demonstrated that, by doing so, they are making a positive contribution to the heroin addiction problem. Such, as we will now show, is not the case.

III. A ban on the importation of opium into the United States will not lead to a universal ban on opium cultivation and will impede current control efforts.—The second premise underlying the proposal to ban opium imports focuses on the issue of control, rather than the question of medical utility. The hypothesis is that the United States can act as a world leader by prohibiting the importation of opium, with the result that other nations will act accordingly. Ultimately, it is theorized, the legal cultivation of the poppy will be eliminated, and thereby facilitate the eradication of illicit production as well.

The chain of logic breaks at the first link, however, for there is no likelihood that this initial step will culminate in multilateral action. It must be remembered that the United States first sought and failed to obtain international support for the elimination of legitimate poppy production and purchases 10 years ago. Once again, in October of 1970, this proposal failed at the Geneva meeting of the International Commission on Narcotic Drugs.

We are unlikely to witness a change of heart by other countries importing opium and its derivatives. Quite the contrary, in the 20 years between 1950 and 1969, world consumption of medicinal codeine has increased from 51,823 kilograms to 142,903 kilograms.[6] It is thus apparent that there is no intent abroad to stem the legitimate flow of narcotic drugs or to impose restraints upon the accessibility of these valuable substances for medical treatment. The growing concern about problems of the illicit narcotic traffic in other countries has focused international efforts on positive programs, including training of law enforcement officers, education, crop substitution and the rehabilitation and social reintegration of drug addicts.[7] No suggestion has ever been endorsed by the International Commission to eliminate legitimate sales or usages of narcotic drugs as part of this program

Moreover, the maintenance of a legitimate channel for opium production has proved to be a highly useful mechanism for controlling opium cultivation. For example, the techniques employed by the Indian Government, based upon a licensing and quota system with incentives for compliance, are premised upon the existence of a legitimate channel for official sales. Indian officials purchase the entire opium crop of licensed farmers annually, at a fixed rate, adjusted according to the farmer's yield, and sell the supplies for medicinal and scientific uses. By providing an outlet at reasonably high prices, without criminal risks, the Government of India has thus successfully ended diversion from licensed fields.[8] Were this outlet jeopardized, the essence of the Indian control system would be threatened.

Today, U.S. purchases of legitimate opium supplies amount to about 20 percent of the total legal world production. Such a proportion is not large enough to alter materially the planting schedules on either Indian or Turkish farms. This excess opium would inevitably become available to the illegal traffickers, swelling the black markets with as much as 20,000 kilograms of heroin annually. The proposed unilateral ban by the United States may thus simply divert opium derivatives from our hospitals to our streets.

---

[5] Eddy, Nathan B., M.D., "Codeine and Its Alternates for Pain and Cough Relief," 40 Bulletin of the World Health Organization 723 (1969).

[6] U.N. International Control Board, "Statistics on Narcotic Drugs."

[7] U.N. Commission on Narcotic Drugs, "Suggestions for Short-Term and Long-Term Measures Against Drug Abuse and Illicit Trafficking," E/cn.7/530, at 8–11 (1970).

[8] *Id.* at 4. See also Murphy and Steele, note 1 *supra*, at 32.

IV. A universal ban on legitimate opium derivatives will not affect illicit opium cultivation or traffic in heroin.

Suppose, however, that a ban on U.S. imports of opium were to stimulate other countries to take similar action, with the result that all poppy cultivation were declared illegal. Would this enable law enforcement officials to eradicate illicit poppy fields or to curb heroin traffic?

Consider, first, the economic dimension of the question. There is presently a substantial financial inducement to poppy growers to sell in the illicit market. In Turkey, for example, according to the Bureau of Narcotics and Dangerous Drugs, the price paid to a farmer for raw opium in 1969 was $11 per kilogram for legal quantities; the illicit market, in that year, paid Turkish farmers approximately $25 per kilogram.[9] Thus, there is a simple profit motive to grov and sell opium illegally, especially in regions which will not support other crops or provide labor alternatives.

A ban on legitimate poppy cultivation will in no manner affect this economic incentive, for the ban is not addressed to those who produce for the illicit market or to those who respond to the lucrative prices paid by black marketeers. A bar to legal production does not offer even an opportunity—much less an incentive—to abandon the illegal production of opium.

Apart from economic concerns, however, it has been suggested that the elimination of legal poppy fields would facilitate the detection and eradication of illicit production. If both legal and illegal supplies originate in substantially the same fields, then a ban on licit cultivation, if enforceable, might reduce illegal production as well. On the other hand, if illegal opium, or most of it, is grown in illegal fields away from those which produce for the legitimate purchaser, then the continued production of legal crops has nothing to do with our heroin problem. It is essential, therefore, to determine where illicit opium poppies are grown.

Last month, the Bureau of Narcotics and Dangerous Drugs, in its submission to the House Subcommittee on Appropriations for the Department of Defense, noted that "illicit production is now concentrated in Southeast Asia (the hill country of Burma, Laos, and Thailand) and in Afghanistan and Pakistan, although it continues to some extent in India and Turkey." [10] BNDD further believes that Burma, Laos, and Thailand alone account for more than 50 percent of all illegal cultivation worldwide, despite the fact that none of these countries produces or sells any legal opium whatever.

There are presently two countries engaged in major legitimate cultivation and exportation of the opium poppy: India and Turkey.[11] Illicit supplies, however, are not concentrated in those countries. In fact, BNDD estimates that in 1968, scarcely more than 20 percent of worldwide illicit opium cultivation occurred there.[12] In other words, assuming that both legal and illegal poppies grow in the same fields in India and Turkey, the elimination of legitimate production in those two countries would effectively stem no more than one-fifth of the world's illicit supply. At maximum efficiency, then, the ban on legitimate cultivation would leave at least 80 percent of illicit opium production totally unaffected.

The truth is that governments which do not have political and physical control over their countries cannot enforce restrictions on the cultivation of opium. The Bureau of Narcotics and Dangerous Drugs concurs in this judgment, asserting that, "Most of the world's illicit opium is now produced by tribal peoples over which their respective national governments impose little political control." [13] Consequently, while Turkey was once viewed as the single greatest source of the heroin problem in the United States, Congressmen Murphy and Steele have recently reported to the House Committee on Foreign Affairs, that today, "From the American viewpoint, Thailand is as important to the control of the illegal international traffic in narcotics as Turkey." [14]

The presence of U.S. servicemen in Southeast Asia has encouraged the traffic to shift further east, illustrating that the picture of the heroin trade will alter according to risks and in response to demand and the opportunity for gain. It appears, in fact, that an increasing amount of the heroin used by American troops in South Vietnam and entering the United States, is produced from poppies grown not only in Burma, Laos, and Thailand, but also in parts of Communist China.[15] Thus, even as Turkey demonstrates increasing interest in control, the problem is developing a new focus. The proposal to ban legitimate crops is, therefore, based on a theoretical, static, and unrealistic concept of the source.

---

[9] Bureau of Narcotics and Dangerous Drugs, "The World Opium Situation," submitted to the House Subcommittee on Appropriations for the Department of Defense, at 7 (April 5, 1971).

[10] *Id.* at 45.

[11] *Id.* at 10.

[12] *Id.*

[13] *Id.* at 38.

[14] Murphy and Steele, note 1, *supra*, at 20.

In short, enforcement policies in each of the countries producing illegitimate supplies are determined independently of the existence of legitimate supplies elsewhere. Indeed, as indicated, no legitimate opium is grown in the countries providing major supplies of illicit poppies. The U.S. import policy would thus have no effect upon these countries and their appreciation of the significance of the narcotics crisis. Congressmen Murphy and Steele, therefore, logically conclude that, "The problem * * * is not the control of legal production, but to find ways to stop leakage of opium to the illegal market." [16]

V. Crop substitution and subsidies, police training, education and rehabilitation are viable means to curb heroin supply and demand.

If a universal ban on licit opium cultivation is inappropriate and ineffective, then what is to be done? There must, as many Congressmen and others have urged, be incentives, and, indeed, coercion where necessary to impress upon foreign governments the necessity for controlling illicit opium production.

There have been bills [17] proposed to eliminate foreign aid to countries which refuse to exert controls over opium production. Senator Mondale has recently pointed out that such a measure would have cost Turkey $100 million in American aid during the last 3 years, unless proper steps had been taken to eliminate illicit poppies from that country.[18] In contrast, a ban on U.S. opium imports would have negligible impact upon Turkey for no more than 5 percent of our opium requirements presently come from this country.

A second, more positive program aimed at supply, and favored by this committee, would focus on crop substitution to provide the opium farmer with a realistic, marketable alternative. Such an approach is already underway on a small scale in Yugoslavia for example, and has proven successful. But money, even in the form of crop subsidies, must supplement any such plan. And while we may decry the failure of other nations to contribute to such efforts, our own funds must not be withheld.

Enforcement techniques abroad have been meager, and largely the product of indifferent governments. Nevertheless, even at our own borders, U.S. officials fail to detect over 95 percent of the heroin smuggled into this country. We, therefore, endorse this committee's recommendation to encourage the development of improved surveillance and detection techniques and devices, in the hope that we will police ourselves with the same effectiveness that we expect of other countries.

Supply should not be the only focus of control. The United Nations Commission on Narcotic Drugs has concluded that there is little chance of success in the fight against drugs, unless illicit demand is controlled as well as supply. Iran is cited as an example. In 1955, Iran successfully banned poppy growing, but adopted no measures to curb demand for opium by large numbers of traditional opium smokers. Unable to obtain opium, many of thse smokers then turned to heroin supplied by outside sources. As a result, "the country now has several hundreds of thousands of addicts, with a large proportion of heroin users," the Commission reports.[19]

It is a drug demand crisis which we face. It is fed by depressants, stimulants and hallucinogens, and poor social and economic conditions, as well as narcotics. To control Turkish opium is not to control heroin; and to control heroin is not to control drug addiction. Indeed, many synthetic compounds having high addiction characteristics have been identified at the U.S. Public Health Service Addiction Research Center in Lexington, Ky. Two of these substances, ketobemidone and dextromoramide, are illegal in the United States, but are manufactured and available in Europe. Doubtless, addicts deprived of heroin will turn to other addictive substances which can be manufactured in clandestine laboratories here or abroad.

---

[15] Murphy and Steele, note 1, supra, at 19.

[16] *Id.* at 32.

[17] *See, e.g.,* H.R. 7821, introduced on April 29, 1971, and sponsored by Congressmen Rangel, Hamilton, and Dellums.

[18] Senator Walter F. Mondale, "Some of Our Friends Are Killing Us With Drugs" in the Washington Post, Parade Magazine, at 13 (May 23, 1971).

[19] "U.N. Suggestions," note 8, *supra,* at 3–4.

Thus we must look to education, treatment, rehabilitation, and social reintegration of addicts—and potential addicts—to meet this crisis. These are long-range programs, as is crop substitution, but pilot projects must first be undertaken. Successful experiments have been attempted. They have also demonstrated that there is no single solution. We must not deceive ourselves into believing that there is.

VI. Conclusion.

We must look for sensible means to meet the multifaceted problem—means which are reasonably related to the ends we seek to achieve—rather than a simple panacea. The proposed ban on the importation and cultivation of all opium does not provide even a partial answer. Rather, it would eliminate a significant medical tool without adding to our prospects of controlling illegitimate narcotics.

We urge this committee to call experts from various international organizations such as the United Nations, Interpol, and the International Narcotics Control Board, and doctors from a wide range of practice who deal with these drugs on a day-to-day basis. We believe that their experience and expertise will lead to the conclusion that the prohibition of the production, importation, and manufacture of legitimate opium will not contribute to the objective which we, along with this committee, earnesly hope for—an end to the present drug epidemic.

Appendix

A. STATEMENTS WITH RESPECT TO THE ADVANTAGES OF MORPHINE

1. Jaffe, Jerome H., M.D., "Opiate Dependence and the Use of Narcotics for Relief of Pain," 5 Modern Treatment 1121 (Nov. 1968) : "Narcotic analgesics relieve pain more selectively than any others now available."

2. Jaffe, Jerome H., M.D., "Narcotic Analgesics," in The Pharmacological Basic of Therapeutics (Goodman and Gilman, eds.) (1970) : "Today, morphine, the alkaloid that gives opium its analgesic actions, remains the standard against which new analgesics are measured. Many of the newer agents may be considered its equal, but it is doubtful that any of them is clinically superior." (p. 237). " * * * for the present, however, morphine and its narcotic surrogates retain their very special place in the never-ending combat against pain" (p. 253).

Dr. Jaffe also describes the relief afforded by morphine, properly administered in the case of terminal cancer, as a "blessing to the patient and his family" (*Id.* at 254) and as "valuable for the preoperative sedation of patients in pain" (*Id.* at 255).

3. Chatton, Milton J., M.D., in Handbook of Medical Treatment (M. J. Chatton, S. Morgan and H. Brainerd, eds.) (1970), describes morphine as "the most valuable of the potent narcotics for general clinical use" (p. 21).

4. Pearson, J. W., M.D., in "Analgesia for Obstetric and Gynecologic Patients," 5 Modern Treatment 1136 (Nov. 1968), concludes that "postoperative pain in gynecologic patients is best treated by morphine."

5. Wang, R. I. H., M.D., "Potent Analgesics," 5 Modern Treatment 1136 (Nov. 1968) ; "Since 1929, under the auspices of the National Research Council a persistent search for a substitute has failed to replace morphine by any synthetic analgesic."

6. AMA Drug Evaluations (1971), ch. 21, "Strong Analgesics," p. 169: " * * * very severe pain (e.g., that associated with biliary, renal, or ureteral colic, or with coronary occlusion) can be relieved best by morphine or its potent congeners."

B. STATEMENTS WITH RESPECT TO THE INDISPENSABILITY OF CODEINE

1. AMA Drug Evaluations, 1971, Ch. 22, "Mild Analgesics," divides mild analgesics into two main subgroups: (1) those agents chemically related to the strong analgesics (codeine, ethoheptazine, and propoxyphene) and (2) the analgecic—antipyretics, of which aspirin is the prototype. The review goes on to say (p. 177) "of the drugs in the first subgroup, codeine is the most effective and, although it has a potential for producing physical dependence, this risk from usual oral doses is small. By varying the dosage, codeine can be used to relieve a considerable range of pain intensity: with lower doses (32 to 65 mg.) its effectiveness is comparable to aspirin (650 mg.) ; more severe pain may be relieved with larger doses, but the incidents of untoward effects is increased . . . Propoxyphene is used alone and in mixtures, and is the most widely used drug of this subgroup. However, it is less effective than codeine and is no more effective due to the fact that it does not require a narcotic prescription rather than to its effectiveness as an analgesic. The usefulness of ethioheptazine, the other drug

of this subgroup is questionable." See also p. 179: "Codeine is probably the most useful mild analgesic because it has a wide effective dosage range."

2. AMA Drug Evaluations, 1971, Ch. 43, Antitussive Agents," pp. 359–360: "Codeine is generally accepted as the most useful antitussive. . . . The disadvantages of the narcotic antitussives have led to intensive investigation to find agents that are effective but relatively free of undesirable effects. As a result, a number of chemically unrelated nonnarcotic antitussive agents have been synthesized and used clinically. Although the mechanism of action of most of these compounds has not been adequately studied, they appear to act primarily by a selective depression of the central cough mechanism. Many of these newer drugs possess typical anesthetic effects, but this property does not contribute significantly to their antitussive action. None of these antitussives has expectorant action or produces bronchodilation when used in the usual dosage, and none of them is sufficiently potent for use in the preparation of patients for endotracheal procedures. All of the newer agents are capable of reducing experimentally induced cough, but few of them have been adequately studied in patients with cough of pathologic origin. Even though patients report subjective impressions of improvement, objective measurements often fail to reveal a significant reduction in the frequency of cough."

3. Beaver, W. T. M.D., "Mild Analgesics in the Treatment of Pain," 5 Modern Treatment 1094 (Nov. 1968). "Codeine is therefore, a very flexible drug in that the physician may adjust the dose within wide limits to cope with a considerable range of pain intensity." (p. 1110) "In summary, oral codeine is an effective mild analgesic of proven merit with substantial versatility in terms of useful dosage range . . . In view of a time-tested record of efficacy and safety, a physician would do well to consider the use of codeine before prescribing newer drugs which ultimately prove deficient in one or the other of these virtues."

4. Jaffe, Jerome H., M.D., "Narcotic Analgesics," in The Pharmacological Basis of Therapeutics (Goodman and Gilman, eds.) 253,271, asserts that among antitussives, nonnarcotic agents do not yet suffice as substitutes for opiates, and points out that present clinical studies are inadequate in this regard. Therefore, he concludes that "for the present, the older narcotic cough suppressants such as codeine, hydrocodone, and dyhydrocodeine remain the standards against which nonnarcotic agents will be measured." To the same effect is Goth, A., M.D., Medical Pharmacology 274 (1970).

5. Eddy, Nathan B., M.D. (with Drs. Hans Friebel, Klaus-Jurgen Hahn and Hans Halback), "Codeine and Its Alternates for Pain and Cough Relief," 40 Bulletin of the World Health Organization 723 (1969): "For most indications codeine is still that antitussive which is prescribed most frequently. A major factor supporting its popularity is the rarity of serious side-effects and of misuse. Another may be the combination of antitussive, pain-relieving and calming effects, perhaps appreciated by more physicians and patients than is generally realized . . . On theoretical grounds several of the codeine alternates have these properties desired in a perfect cough depressant:

(1) they possess significant cough-depressing potency;
(2) they depress coughs of different pathological origins;
(3) their frequency of side-effects is no greater, perhaps less, than for codeine; and
(4) they are devoid, or practically devoid, of abuse liability.

"For none of them, however, is our quantitative and practical knowledge complete enough to establish therapeutic priority." (p. 728)

Citing Dr. Seevers, Dr. Eddy also states ". . . codeine can be replaced in certain specified and limited situations, but: Judging from the continued popularity of codeine among physicians and laymen alike throughout the world in spite of the easy availability of the so-called 'non-toxic' preparations, it seems illogical to abandon a drug like codeine which possesses, in one agent, not only antitussive properties but also pain relief and sedative properties which are helpful in relieving the discomfort often associated with a cough . . . Codeine serves a need which is not presently met by other substances; . . . [the evidence] hardly justifies discontinuing its availability."

[Exhibit No. 29]

STATEMENT OF ARNOLD BECKER, PUBLIC DEFENDER, ROCKLAND COUNTY, N.Y.

This is a recommendation to Chairman Claude Pepper, for his Select Committee on Crime in the House of Representatives for the Congress of the United

States, from Arnold Becker, public defender of Rockland county, and clinical instructor of psychiatry (Law), and head of the section on law, psychiatry and the behavioral sciences within the Department of Psychiatry at the Cornell Medical College.

The malignancy of drug addiction is no less acute in 1971 than it was in 1961 and 1951. The stricter controls, the more punitive measures, have not even effected a temporary turn-back in narcotic cases. Indeed, the laws that have been enacted, which are brought to play against those who are afflicted with narcotic addiction or who abuse drugs to any extent, do nothing to strike at the cause but merely hits at the affect. Drug abusers in general, and drug addicts in particular, are no less prone to become what they are, because of the penal nature of the laws that are enacted by the legislatures.

It is difficult to say why people, young and old, become drug abusers or drug addicts. However, it has become quite obvious that the mere fact that drug possession is prohibited by law, does not prevent those who wish to use drugs from purchasing and possessing any drug they desire.

Whatever the drug users drives may be, peer pressure, psychological or sociological need or the host of reasons that are now being explored by those in drug research, the fact is, people who want drugs, get drugs, regardless of how harsh the penalties and punishments set by law.

We are all aware of the debilitating affect of drugs on the mental and physical health of drug abusers. We have also seen families destroyed, our citizens burglarized, robbed, and in some cases, murdered by the insatiable hunger drug addiction produces. No one is more aware of the deadly affect of drug use than the drug user himself. I have personally spoken to hundreds of drug users and they all realize they are traveling on a short road to death. But somehow, the threat of prison, of young, sudden death means little to those who exist in the twilight world of drugs.

For him or her, the period of euphoria; the period of warmth and security; the period of not having to fight with the world surrounding them overcomes all the rational arguments against the use of drugs.

Indeed, all the laws and arguments against drugs have accomplished little. America's drug problem has reached epidemic proportions. It is time to admit that our courts, law enforcement agencies and our feeble attempts at drug rehabilitation have reached the point of utter failure. I have reached the conclusion that new methods must be tried, new avenues must be explored in order to deal effectively with the problem.

I suggest that the entire problem of drug abuse and addiction be taken out of the hands of the courts and law enforcement agencies and placed in the hands of those, whom I feel have the knowledge, and background to deal with drug abuse and addiction: the medical profession.

It is the medical practitioner, the doctor, the psychiatrist, the behavioral scientist, who may be in the best position to come up with an answer to the problem. Throwing drug abusers and drug addicts into jail or State prison without meaningful treatment is a useless effort. For upon discharge, whatever caused them to seek drugs in the first instance, will, in all probability, still be present. It has been my experience that the untreated drug abuser or drug addict, within a short time, upon release from any period of incarceration, is drawn to the very drugs that put him in prison, as a bee is drawn to pollen

The stresses of society or war in Vietnam seems to have had a drug cultivating effect on our military personnel so that drug abuse and drug addiction is now flourishing among a great number of veterans who have returned from the Far Eastern theater. How many of these veterans are in State prisons because they were involved in crimes brought about by their drug abuse or drug addiction?

I use the word "treatment" and not "punishment". Punishment, I submit and the threat of punishment, can never be used to cure what is either a medical disorder or a social disorder.

Is drug abuse and drug addiction a social dilemma or is it a medical dilemma? One thing seems very clear, the penal law, the courts and the law enforcement officials have had more than 30 years to effectively deal with the problem. They have been unable to do so. I suggest that at this juncture, they abdicate their major roll and turn the task over to those to whom it rightfully belongs: namely: the medical profession.

The courts and law enforcement officials have had their chance. Let the doctors, psychiatrists and behavioral scientists now have theirs.

[Exhibit No. 30]

STATEMENT OF REV. STANLEY M. ANDREWS, FOR LIBERTY LOBBY

Mr. Chairman and members of the committee:

I am Rev. Stanley M. Andrews, former national coordinator of the Save our schools program, a special project of Liberty Lobby. I am also chairman of the Maryland Citizens Committee for Decency and Morality, and pastor of the First Bible Baptist Church, Rockville, Md. My interest in and study of this subject dates back to my years both on the staff of the Governor of Ohio, and later as a member of Senator Frank J. Lausche's staff here on Capitol Hill.

I would appreciate an opportunity to appear in person before your committee to present the following testimony, on behalf of the 20,000-member board of policy of Liberty Lobby, and the 200,000 subscribes to our monthly legislative report, Liberty Letter:

During the past few years, I have been engaged in activities relating to the public school system and its problems. Presently in Montgomery County, Md., where I live, not only pot but so-called hard drugs are a problem both in the senior and junior high schools. Regrettably, even the elementary schools are now infiltrated by pushers of drugs.

So far, no adequate program of education relating to drug use has been devised. We would support any reasonable research to devise such educational aids that could be developed, but we believe that education and rehabilitation are not cures for this most serious problem.

I am sure you will all agree that as you look back on your own youth, teenagers especially respond to the challenge of the unknown. There is a natural desire to try that which is forbidden, and to demonstrate that the Establishment (whether school, church, government, or family) is "out of date or out of touch with the new scene." This is a part of "growing up" and so far no educational methods have been developed to cope with this natural rebellion against authority which is inherent in adolescents.

Along with this age-long conflict between the older generation and youth today, we face an era in which the various communications media—the press, magazines, radio, and TV—have given unusual emphasis and publicity to the exponents of drug use. Dr. Timothy Leary was made the "hero of the drug age" because the press exploited his views. The use of grass and LSD by youth in our public schools and in our universities spread like wildfire in the wake of Leary's public exposure as the high priest of drugs. The media must accept great responsibility for their part in creating the American drug scene as it relates to youth. Perhaps your committee could consider the drafting of legislative guidelines to insure the proper presentation of the dangers of drug use by our national media agencies.

Much is being written and has been already discussed by witnesses before your committee relating to the serious growth of drug use in the armed forces. Dr. Charles Winnick, of the American Social Health Association, said, "A young man who may face the possibility of having his head blown off in Vietnam is hardly dissuaded from drug use by being told 'he will go out of his head' by taking drugs." A program of education, no matter how much crash priority the Government gives it, will not meet the "now" generation, which does not want to delay its personal gratification. It wants its kicks and thrills now, especially since it has little faith in the Establishment and its ability to make a better world for the new generation. Education, then, is only a stop-gap, not a solution.

Presently, many romantic and self-satisfying theories relate to the dangers of drug use. Some believe that this is "just a passing phase" in American society. Yet, the history of China, of Indo-China, and of Turkey indicates clearly that drug use is never abated by education or soft-sell approaches to the problem. Much is said for setting up on a national basis of rehabilitation centers, especially for our veterans. Looking back on the results of our present Federal drug rehabilitation centers, such as Lexington, Ky., and other drug farms and clinics, we see the prospect of full rehabilitation is extremely problematical. It is a truism that ultimately most drug addicts go back into the same environmental in which drugs are part of the scene, and are lost to productive society. It is true that with the use of new drugs that are being developed, the future will see a larger percentage of drug users truly rehabilitated.

However, we must look at rehabilitation pragmatically, and accept the fact that such national rehabilitation programs as proposed will cast on the Federal budget and the American taxpayer an additional heavy burden.

I recognize that local and State governments have not accepted their responsibility toward the drug user in the local community. Again, in my home county (Montgomery) there is only one hospital that will accept even youngsters who are on bad trips. One night I was called to a home where a 16-year-old girl celebrated her birthday by taking drugs and was climbing the walls literally when I arrived. We rushed her to the largest hospital in the area, only to be told they had no facilities to handle such cases. The Federal Government should devise means of cooperation with local and State governments to provide some type of responsible emergency treatment.

Since I have indicated a lack of faith in education or rehabilitation as the means of coping with the problems, the question can be naturally asked, "What then do you suggest?"

Looking at the dangerous problem, which if not met will destroy the moral fiber of our Nation, one cannot escape the logical conclusion—the use of drugs is an economic problem. Like most crime, there is a profit motive. It is most significant that law enforcement history indicates that the real pushers of drugs, the big wholesalers and most local pushers, are not addicts. They are in the drug traffic for one reason only: to make money. They have no noble ideals nor emotional arguments, such as are used by the disciples of Dr. Leary and his ilk. They simply are in the business to put money in their pockets. The economic loss to American society is tremendous. Beyond the lives made useless and wasted is the hidden loss to our productive society. Both manpower and money are going down the drain into the pockets of these criminals. This must be stopped.

Today, as I have indicated, there is too much soft-selling of solutions to this problem. I believe that only by the adoption of the most severe and harshest of penalties can this traffic in drugs be stopped. I therefore urge this committee to recommend the drafting and enacting of Federal legislation which would make the unlicensed sale of addictive drugs a capital crime. If there is a lack of respect for the authority of the law today, it is largely due to the fallacious arguments of those who would treat all criminals as "sick people needing rehabilitation." It is time that the courts treat the criminal as a criminal. No one gets into the drug traffic because he is sick. He gets into the traffic for money and money alone. He is no different from the Mafia member who takes a contract to kill a complete stranger. The drug seller morally is no different from the murderer for profit. Often his victims are literally murdered by the drugs the pusher has sold.

During recent months, efforts have been made to cut off the supply of drugs coming into the United States. Much publicity has been given to the efforts by our Government to persuade Turkey to reduce its opium crops and enforce drug controls. However, as your committee has already pointed out, "the Turkish Government has merely weeded out the inefficient opium-producing areas." All efforts to secure enforceable stiff controls through the United Nations have failed, and the Communist and neutral nations merely say "it is an American problem." While we do not accept that conclusion and believe these unsatisfying results only show the futility of attempting to use the U.N. channels, these efforts do point up my argument that drug traffic is purely an economic problem.

I recall the time when it was the munition-makers who were pilloried as "merchants of death" and there was a great outcry in the public press. I believe that in the 1970's the drug wholesalers and pushers are the real "merchants of death." I urge your committee, therefore, to give most serious consideration to our recommendation that the Federal Government enact legislation which would impose death as the penalty for unlicensed trafficking in drugs. If we enforce such a Federal law, then methods for suitable education and rehabilitation will not become another burden on our Federal budget.

Finally, it occurs to me that recently we were threatened with a rash of airline hijackings. We met that crisis by quickly enlisting and training air marshals. So far, I have not seen suggested that with drug traffic becoming our No. 1 domestic problem, we consider the crash enlargement of the work of the Bureau of Narcotics, which fights on like King Canute trying to stem the unceasing tide. Let's give them the money, the men, and the law which will meet the issue head on!

Thank you for this opportunity to present our views on this most vital subject.

[Exhibit No. 31]

HARVARD MEDICAL SCHOOL—DEPARTMENT OF MEDICINE,
BOSTON CITY HOSPITAL,
Boston, Mass. August 4, 1971.

Hon. CLAUDE D. PEPPER,
Chairman, Select Committee on Crime,
U.S. House of Representatives, Washington, D.C.

DEAR CONGRESSMAN PEPPER: Our recently completed study entitled "Decreased drug abuse with transcendental meditation: A study of 1,862 Subjects," indicated that individuals who regularly practiced transcendental meditation (*a*) decreased or stopped abusing drugs, (*b*) decreased or stopped engaging in drug-selling activity, and (*c*) changed their attitudes in the direction of discouraging others from abusing drugs. No data were collected concerning hard-core addiction. but 16.9 percent claimed use of narcotics such as heroin, opium, morphine, and cocaine before starting the practice of transcendental meditation. After 22–33 months of meditation, only 1.2 percent claimed continued use of these drugs. No data were gained concerning the socioeconomic background of these subjects.

So few alternatives to hard-core drug addiction now exist that I believe further investigation of the effects of transcendental meditation no such addiction is warranted. The above-noted study, while encouraging as preliminary findings, should be viewed in the context of an idea which requires additional data for verification. Extensive control groups, more information relating to degree of usage and addiction with urine verification, more data concerning the socioeconomic background of the subjects, and adequate followup studies to learn what the possible long-term effects of transcendental meditation are on hard-core addiction are required.

Enclosed please find a preliminary research proposal for your consideration, and a copy of the study entitled "Decreased Drug Abuse With Transcendental Meditation."

I remain,

Sincerely yours,

HERBERT BENSON, M.D.,
Assistant Professor of Medicine.

Enclosures: (2).

ENCLOSURE 1

PRELIMINARY RESEARCH PROPOSAL

In order to study whether meditation may indeed be a nonchemical alternative to narcotic addiction, and to ascertain which, if any, subsets of this addiction population would find such an alternative applicable, the following study is proposed:

Two populations will be studied:

(*a*) One group from half-way houses from lower-, middle-, and upper-class environments;

(*b*) A second group from civil committment type facilities. Each population group should be composed of approximately 600 persons.

Each of the groups will be divided into three different sections which will be geographically isolated, but otherwise as closely matched as possible with regard to age, sex, socioeconomic background, drug abuse habits, and degree of addiction. Each person within each group will complete a questionnaire with built-in internal checks for consistency concerning his use of narcotic-class drugs. The accuracy will be verified by urine testing.

Within each group, one section will be left alone with the routine rehabilitation measures. The second will have transcendental meditation offered as it is routinely taught—namely as a volitional choice. The third will be required to attend sessions where transcendental meditation instruction is being given.

At the end of 1, 3, 6, 9, 12, 24, and 36 months, use of narcotic drugs will be reassessed as above and meditational habits ascertained. It is assumed that after 6 months the subjects will have returned to their home environments.

Data will thus be obtained which will yield the following from both halfway houses and civil-committment-type facilities:

(*a*) The natural history of narcotic usage as influenced by routine rehabilitation measures will be assessed. These results will be obtained from those not offered transcendental meditation.

(*b*) The effect of transcendental meditation as normally taught and offered on such usage will be assessed.

(*c*) The effect of required transcendental meditation on such usage will be assessed.

(*d*) The effects of transcendental meditation as well as the routine measures will be assessed as per socioeconomic grouping and degree of addiction.

(*e*) The long-term noninstitutional effects of both types of programs will be assessed. Attempts will be made to determine environmental influences on participants in the study after they return to their home communities by readministering the questionnaire and verifying with urine samples.

Enclosure 2

DECREASED DRUG ABUSE WITH TRANSCENDENTAL MEDITATION—A STUDY OF 1,862 SUBJECTS

(By Herbert Benson, M.D., and R. Keith Wallace, Ph. D., with the technical assistance of Eric C. Dahl, B.A., and Donald F. Cooke, B.S.)

From the Thorndike Memorial Laboratory, Channing Laboratory, Harvard Medical Unit, Boston City Hospital, Boston, Mass., and the Department of Medicine, Harvard Medical School, Boston, Mass.

Supported in part by grants from the National Heart and Lung Institute (HE 10539–05), the National Institutes of Health (SF 57–111), and from Hoffmann-LaRoche, Inc., Nutley, N.J.

The abuse of drugs of all kinds is widespread in the United States and the extent of abuse, particularly of marijuana and hallucinogenic drugs, is growing (*1–3*). It is estimated that in the United States 35–50 percent of high school and college students have tried marijuana at least once, and of these about 35 percent have tried marijuana more than 10 times (*2*). A conservative estimate of persons in the United States, both juvenile and adult, who have used marijuana is about 5 million and may be as high as 20 million (*1*). In surveys of d-lysergic acid diethylamide (LSD) use in college populations, 5 percent of the students polled admitted to using LSD, with about 30 percent of the sample being classified as "serious" users and the remaining 70 percent as "experimentors" (*2*). Law enforcement agencies report there are approximately 65,000 active "hard" narcotic addicts in the United States. Other estimates indicate that there are 100,000 active narcotic abusers (*2*). The abuse of amphetamines and barbiturates is widespread, but difficult to estimate. College surveys have indicated that over 20 percent of the students have abused these drugs (*3*). Stanley F. Yolles, M.D., Director of the National Institute of Mental Health, summed up the situation as follows:

"The spreading of the abuse pattern into unusual and exotic drugs and the involvement of increased numbers of people have serious implications. It seems that today if a chemical can be abused, it will be. Further, it appears that stronger and more dangerous drugs tend to displace weaker drugs during this period of excessive preoccupation with mind altering chemicals. One further identifiable ominous trend is the indulgence in drugs of abuse by younger and younger age groups.

"It is to be expected that the use of all sorts of drugs in the next 10 years will increase a hundredfold. It is necessary, therefore, to develop effective processes to control their abuse today." (*3*)

Few programs or treatments have been reported which alleviate drug abuse. One apparently successful program for the rehabilitation of persons abusing narcotics involves the substitution of methadone (*4,5*). Existing programs for the alleviation of other drug abuse usually involve education as to the dangers of the effects of drugs and sometimes provide personal counselling or psychiatric care (*6-9*). The efficacy of these programs has yet to be established.

A preliminary observation suggested that the practice of transcendental meditation, as taught by Maharishi Mahesh Yogi, may be effective in alleviation of drug abuse (*10*). The present report confirms and expands the earlier observation.

METHODS

The technique of transcendental meditation is reported to be an easily learned mental technique which originated in ancient Vedic tradition of India (*11,12*). Practitioners are personally instructed by a teacher qualified by Maharishi Mahesh Yogi. The technique is claimed to be a spontaneous natural process, and unlike many techniques of meditation or self-improvement, does not employ mental control, physical control, belief, suggestion, or any change in life style. It is also claimed that anyone can learn the technique in four or five instructional sessions. Practitioners are asked to abstain from drug abuse for a 15-day period prior to starting meditation. Following the start of transcendental meditation, the program involves practicing the technique twice a day for periods of 15 to 20 minutes. The program does not involve any type of personal counseling or giving advice about personal problems. Individuals practice the technique on their own. The only additional contact between the individual and the instructors or organization is concerned with ensuring correct practice of the technique and providing intellectual knowledge about it.

Questionnaires were given to approximately 1,950 subjects who had been practicing transcendental meditation for 3 months or more and who were attending one of two meditation training courses offered by the Students' International Meditation Society[1] in the summer of 1970. Of these, 1,862 completed the questionnaire. Age, sex, educational status, and length of time that transcendental meditation had been practiced were obtained. Further, frequency of drug use, drug selling activity, and attitudes toward drug abuse were assessed for each of five separate time periods: (*a*) 6 months before starting Meditation; (*b*) 0–3 months after starting; (*c*) 4–9 months after starting; (*d*) 10–21 months after starting; and (*e*) 22 months or more after starting. The separate drugs and categories of drugs included in the questionnaire were (*a*) marijuana; (*b*) LSD; (*c*) other hallucinogens (2,5-dimethyloxy-4-methyl amphetamine (STP), N,N-dimethyltryptamine (DMT), peyote, and mescaline); (*d*) narcotics (heroin, opium, morphine, and cocaine); (*e*) amphetamines; and (*f*) barbiturates.

Additional information was requested concerning the frequency of use of "hard liquor" and the number of packs of cigarettes. Hard liquor was defined as "alcoholic beverages stronger than wine or beer."

The information on the questionnaires was analyzed on an IBM 360–65 computer. The CROSSTABS[2] multivariant data analysis program was utilized and all processing was done by Urban Data Processing, Inc.[3] The subjects were classified into four categories depending on the frequency of drug use; (*a*) nonusers: (*b*) light users; (*c*) medium users; and (*d*) heavy users. For the subjects using marijuana, narcotics, amphetamines, barbiturates, hard liquor, and cigarettes, a "light user" indicated a frequency of three times a month or less: "medium user," once a week to six times a week; and "heavy user," once a day or more. For LSD and other hallucinogens, "light user" indicated a frequency of less than once a month; "medium user," from one to three times a month; and "heavy user," once a week or more.

RESULTS

A total of 1,862 subjects responded to the questionnaire. There were 1,081 male subjects and 781 female subjects (table 1). The age of the subjects ranged from 14 to 78 years and approximately half of the subjects were between the ages of 19 and 23. Most had attended college and many had college degrees (table 2). The average length of time they had been practicing transcendental meditation was approximately 20 months.

Following the start of the practice of transcendental meditation, there was a marked decrease in the number of drug abusers for all drug categories (tables 3–8). As the practice of meditation continued, the subjects progressively decreased their drug abuse until after practicing 21 months of meditation most subjects had completely stopped abusing drugs. For example, in the 6-month period before starting the practice of meditation, about 80 percent of the subjects used marijuana and of those about 28 percent were heavy users. After practicing transcendental meditation 6 months, 37 percent used marijuana and of those only 6.5 percent were heavy users. After 21 months of the practice, only 12 percent continued to use marijuana and of those most were light users; only one individual was a heavy user. The decrease in abuse of LSD was even more marked. Before starting the practice of transcendental meditation, 48 percent of the subjects had used LSD, and of these subjects about 14 percent were heavy users. In the 3 months following the start of the practice of meditation, 11 percent of the subjects took LSD, while after 21 months of the practice only 3 percent took LSD. The increase in the number of nonusers after starting the practice of meditation was similar for the other drugs: nonusers of the other hallucinogens after 21 months of the practice rose from 61 to 96 percent: for the narcotics from 83 to 99 percent for the amphetamines from 70 to 99 percent; and for the barbiturates from 83 to 99 percent.

---

[1] National Headquarters, 1015 Gayley Avenue, Los Angeles, Calif.
[2] Cambridge Computer Associates, 22 Alewife Brook Parkway, Cambridge, Mass.
[3] Urban Data Processing, 552 Massachusetts Avenue, Cambridge, Mass.

In the 6-month period before starting the practice of meditation, 60 percent of the subjects took hard liquor, and, of these, about 4 percent were heavy users (table 9). After 21 months of the practice of meditation, approximately 25 percent took hard liquor and only 0.1 percent were heavy users. Approximately 48 percent smoked cigarettes before starting meditation and 27 percent were heavy users (table 10). After 21 months of practicing meditation, 16 percent smoked cigarettes and only 5.8 percent were heavy users.

Most subjects felt that transcendental meditation was instrumental in their decreasing or stopping abuse of drugs: 61.1 percent stated that it was extremely important: 22.8 percent that it was very important: 12 percent somewhat important and 3.6 percent not important. Of those individuals who continued drugs following starting transcendental meditation, 55.9 percent had been irregular in meditation and 24.8 percent had stopped for a week or more.

Three hundred seventy-four subjects (20.1 percent) sold drugs before starting meditation. Of these, 71.9 percent stopped and 12.5 percent decreased drug selling during the period 0–3 months after instruction. Among the subjects who practiced meditation 21 months or longer and who at one time were actively involved in selling drugs, 95.9 percent stopped selling drugs. In addition, 997 (65.5 percent) had either encouraged or condoned drug abuse before starting meditation. Over 95 percent of these subjects discouraged drug abuse in others after beginning the practice of meditation.

DISCUSSION

Individuals who regularly practiced transcendental meditation (*a*) decreased or stopped abusing drugs, (*b*) decreased or stopped engaging in drug selling activity, and (*c*) changed their attitudes in the direction of discouraging others from abusing drugs. The magnitude of these changes increased with the length of time that the individual practiced the technique. Similar decreases were noted in the use of "hard" alcoholic beverages and cigarette smoking. A high percentage of the individuals who did change their habits felt that transcendental meditation was very or extremely important in influencing them to change.

During transcendental meditation oxygen consumption and heart rate significantly decrease, skin resistance significantly increases and the electroencephalogram shows predominantly slow alpha wave activity with occasional theta wave activity (*13*). Thus, the practice of transcendental meditation is physiologically distinguished from sitting quietly with eyes open or closed, from sleeping or dreaming and from suggesting relaxation or rest through hypnosis. During transcendental mediation subjects report that their awareness is spontaneously drawn to "finer" or "more abstract" levels of the thinking process.

There are no simple explanations of the factors which lead to drug abuse. The types of motives which initiate and prolong drug abuse range from such things as social pressure, curiosity, desire for "kicks," rebellion against authority, escape from social and emotional problems to more philosophical motives such as self-knowledge, creativeness, spiritual enlightenment or expansion of consciousness (*14*). Student drug users are, as a group, knowledgable about the undesirable effects of drug abuse. In general, it is not difficult for most student drug abusers to stop. The issue is to get them to want to stop. For a drug abuse program to be effective it must provide a nonchemical alternative which can at least fulfill some of the basic motivations behind student drug abuse.

Transcendental meditation is acceptable among youthful drug abusers. It is offered as a program for personal development and is not specifically intended to be a treatment for drug abuse; the alleviation of the problems of drug abuse is merely a side effect of the practice. Thus, it may not threaten those beliefs of the committed abuser who condones the use of drugs. Since the introduction of transcendental meditation into the student community 5 years ago, over 40,000 individuals have allegedly begun the practice (*15*). Further, the movement continues to grow. It is presently being presented through campus organizations at some 300 colleges and universities and at several universities it is offered in the context of an accredited course.

Involvement in other kinds of self-improvement activities may also lead to decreased drug abuse. The motivation to start meditation may have influenced the subjects to stop drug abuse. The subjects in the present study may have spontaneously stopped, continued, or increased taking drugs independently of transcendental meditation.

However, since there are few effective programs which alleviate drug abuse, transcendental meditation should be investigated as an alternative to drugs by a controlled, prospective study.

SUMMARY

Drug abuse is widespread and increasing in the United States, especially in student populations. However, few effective programs exist for the alleviation of drug abuse. Transcendental meditation, a popular and easily learned mental technique which allegedly originated from the ancient Vedic tradition of India, was investigated as a possible means of decreasing drug abuse. Eighteen hundred sixty-two subjects who had practiced transcendental meditation at least 3 months formed the basis of this study. These subjects significantly decreased or stopped abusing drugs; decreased or stopped engaging in drug selling activity; and changed their attitudes in the direction of discouraging others from abusing drugs after starting transcendental meditation. Further, the subjects decreased their use of "hard" alcoholic beverages and cigarette smoking. The magnitude of these changes increased with the length of time that the subject practiced transcendental meditation. Involvement in other types of self-improving activities may also lead to decreased drug abuse. However, since there are few effective programs which alleviate drug abuse, transcendental meditation should be investigated as an alternative to drugs by a controlled, prospective study.

REFERENCES

(*1*) Resource Book for Drug Abuse Education. National Clearinghouse for Mental Health Information, United States Department of Health, Education, and Welfare, Public Health Service, Health Service and Mental Health Administration, National Institute of Mental Health: 1969. Washington, D.C., Government Printing Office, 1969 (PHS Publication No. 1964), p. 25.

(*2*) Recent Research on Narcotics, LSD, Marijuana and Other Dangerous Drugs. National Clearinghouse for Mental Health Information, U.S. Department of Health, Education, and Welfare, Public Health Service, Health Service and Mental Health Administration, National Institute of Mental Health, 1969. Washington, D.C., Government Printing Office, 1969 (PHS Publication No. 1961), pp. 1, 2, 7, 11, 18.

(*3*) Yolles, S. F.: Statement for Stanley F. Yolles, M.D., Director, National Institute of Mental Health, Before the Subcommittee on Public Health and Welfare of the Interstate and Foreign Commerce Committee on H.R. 11701 and H.R. 13743, 1969, Loose leaf, pp. 13–16.

(*4*) Byrd, O. E.: Medical Readings on Drug Abuse, Reading, Mass., Addison-Wesley Publishing Co., 1970, pp. 255–257.

(*5*) Eddy, N. B.: Methadone maintenance for the management of persons with drug dependence of the morphine type. Drug Dependence. 3: 17–26. 1970.

(*6*) Wiesen, R. L., I. H. Wang, and T. J. Stensper: The drug abuse program at Milwaukee County Institutions, Wisconsin Med. J., 69: 41–150, 1970.

(*7*) Murphy, B. W., A. M. Leventhal, and M. B. Balter: Drug use on the campus: A survey of university health services and counseling centers. J. Amer. Coll. Health Ass., 17: 389–402, 1969.

(*8*) Pollock, M. B.: The drug abuse problem: Some implications for health education, J. Amer. Coll. Health Ass., 17: 403–411, 1969.

(*9*) Hickox, J. R.: Drug abuse education. Texas Med., 65: 31–33, 1969.

(*10*) Benson, H.: Yoga for drug abuse, New Eng. J. Med., 281: 1133, 1969.

(*11*) Maharishi Mahesh Yogi: The Science of Being and Art of Living. London, International S.R.M., rev. ed., 1966, pp. 50–59.

(*12*) Maharishi Mahesh Yogi: Maharishi Mahesh Yogi on the Bhagavad Gita: A new translation and commentary. Baltimore, Penguin, 1969. Originally published by International S.R.M., London, 1967, pp. 10–17.

(*13*) Wallace, R. K.: Physiological effects of transcendental meditation. Science, 167: 1751–1754, 1970.
(*14*) Cohen, A. Y.: Inside what's happening: Sociological, psychological, and spiritual perspectives on the contemporary drug scene. Am. J. publ. Hlth., 59: 2092–2097, 1969.
(*15*) Jarvis, J.: Personal communication from the Students' International Meditation Society, 1015 Gayley Avenue, Los Angeles, California, 90024.

TABLE 1.—AGE AND SEX OF THE RESPONDENTS TO THE QUESTIONNAIRE

Sex	Age					Total
	14 to 18	19 to 23	24 to 28	29 to 38	39 and over	
Male:						
Number	61	574	322	82	42	1,081
Percent	3.3	30.8	17.3	4.4	2.3	58.1
Female:						
Number	71	363	167	81	99	781
Percent	3.8	19.5	8.9	4.4	5.3	41.9
Total:						
Number	132	937	489	163	141	1,862
Percent	7.1	50.3	26.2	8.8	7.6	100.0

TABLE 2.—EDUCATION OF THE RESPONDENTS TO THE QUESTIONNAIRE

Educational experience	Less than high school	High school graduate	Some college	College graduate	Advanced college degree	Total
Number	100	183	971	460	148	1,862
Percent	5.4	9.8	52.2	24.7	7.9	100.0

TABLE 3.—USE OF MARIHUANA AND HASHISH BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	417	22.4	47	2.5	39	2.1	18	1.3	1	0.1
Medium	618	33.2	190	10.2	137	7.5	65	4.6	18	2.1
Light	422	22.7	613	32.9	500	27.3	264	18.6	85	10.0
Nonuser	405	21.7	1,012	54.4	1,154	63.1	1,070	75.5	748	87.8
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 4.—USE OF LSD BEFORE AND AFTER STARTING THE PRACTICE OF TRASCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	132	7.1	14	0.7	13	0.7	6	0.4	0	0
Medium	301	16.1	60	3.3	36	1.9	23	1.7	3	.3
Light	467	25.1	159	8.5	151	8.3	72	5.1	23	2.7
Nonuser	962	51.7	1,629	87.5	1,630	89.1	1,316	92.8	826	97.0
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 5.—USE OF OTHER HALLUCINOGENS BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	5	0.3	4	0.2	5	0.3	3	0.2	0	0
Medium	56	3.0	32	1.7	30	1.7	19	1.4	0	0
Light	665	35.7	143	7.7	130	7.0	90	6.4	34	4.0
Nonuser	1,136	61.0	1,683	90.4	1,665	91.0	1,305	92.0	818	96.0
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 6.—USE OF NARCOTICS BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	12	0.6	1	0.1	1	0.1	1	0.1	0	0
Medium	17	.9	2	.2	2	.2	2	.2	0	0
Light	286	15.4	47	2.5	39	2.1	30	2.1	10	1.2
Nonuser	1,547	83.1	1,812	97.2	1,788	97.6	1,384	97.6	842	98.8
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 7.—USE OF AMPHETAMINES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	30	1.6	7	0.4	3	0.2	2	0.1	0	0
Medium	96	5.2	11	.6	9	.5	2	.2	0	0
Light	470	25.2	104	5.6	79	4.3	49	3.4	10	1.2
Nonuser	1,266	68.0	1,740	93.4	1,739	95.0	1,364	96.3	842	98.8
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 8.—USE OF BARBITURATES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

Usage [1]	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	19	1.0	1	0.1	3	0.2	1	0.1	0	0
Medium	43	2.3	7	.4	3	.2	2	.1	1	.1
Light	258	13.9	56	2.9	37	2.0	27	1.9	8	1.0
Nonuser	1,542	82.8	1,798	96.6	1,787	97.6	1,387	97.9	843	98.9
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

TABLE 9.—USE OF "HARD LIQUOR" BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
Usage[1]	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	50	2.7	21	1.2	16	0.9	8	0.6	3	0.4
Medium	295	15.8	149	8.0	100	5.5	52	3.7	22	2.6
Light	770	41.4	646	34.7	551	20.1	365	25.8	187	21.9
Nonuser	747	40.1	1,046	56.1	1,161	63.5	992	69.9	640	75.1
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

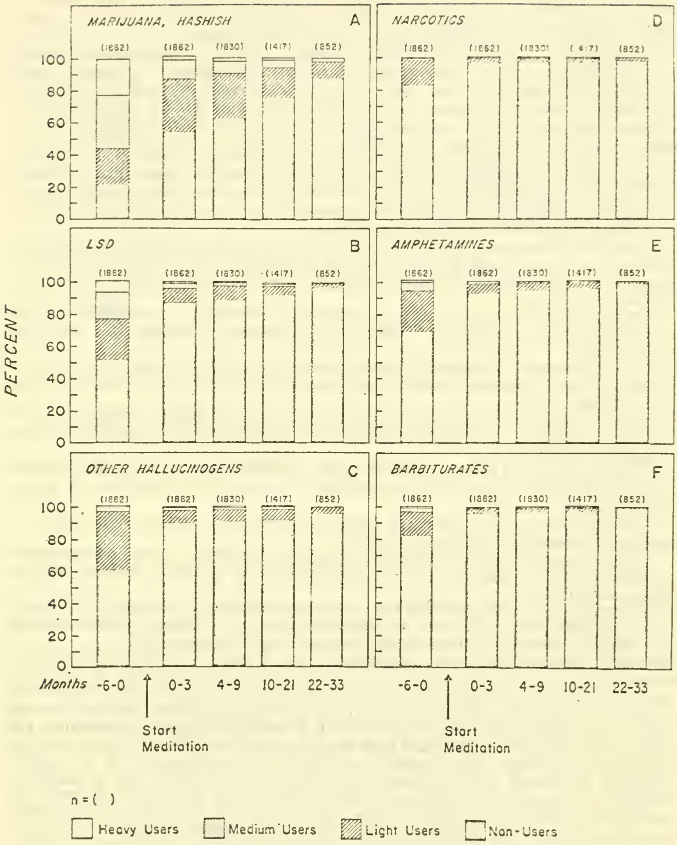
TABLE 10.—USE OF THE NUMBER OF PACKS OF CIGARETTES BEFORE AND AFTER STARTING THE PRACTICE OF TRANSCENDENTAL MEDITATION

	Before (months)		After (months)							
	−6 to 0		0 to 3		4 to 9		10 to 21		22 to 33	
Usage[1]	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Heavy	503	27.0	314	16.9	222	12.2	118	8.4	49	5.7
Medium	180	9.7	165	8.9	136	7.4	86	6.0	34	4.0
Light	203	10.9	186	10.0	163	8.9	105	7.4	55	6.4
Nonuser	976	52.4	1,197	64.2	1,309	71.5	1,108	78.2	714	83.9
Total	1,862	100.0	1,862	100.0	1,830	100.0	1,417	100.0	852	100.0

[1] See text for definitions.

ACKNOWLEDGEMENT

We thank Miss Barbara R. Marzetta and Miss Lyne Heppner for their help in the preparation of the manuscript.



(The following letter was sent to 79 drug companies concerning ongoing research in narcotic blockage and antagonistic drugs and related areas. A summation of their responses will appear in the committee's report to Congress to be printed in the fall.)

[Exhibit No. 32]

Select Committee on Crime,
House of Representatives,
Congress of the United States,
Washington, D.C., June 14, 1971.

Dear Sir: You may know that the Select Committee on Crime has, over the past two years, devoted a considerable portion of its time and energy to the multiple problems of drug abuse and drug dependence in the United States. Testimony which has been recently received by my Committee lends credence to the thought that, with accelerated narcotic research, a possible solution to the crisis in America lies, to a considerable extent, in the development of longer lasting and more effective narcotic blockage and/or antagonistic drugs.

At present, the drug most relied upon to treat and rehabilitate narcotic addicts is methadone. As you are no doubt aware, the development of naloxone and cyclazocine provide hope that we are on the right road toward discovering a safe and non-addictive alternative, however, testimony before this Committee indicates that only a very minimal amount of research in this direction is ongoing currently. Accordingly, we hope to recommend to the Congress ways in which research in this area can be stimulated, including possible encouragement of the private drug industry to work cooperatively with the Federal Government.

To assist and guide our Committee to better understanding the ongoing research in this field, as well as the capabilities for research, we would be most appreciative if you would respond to the following questions:

1. Describe the research facilities you have at your disposal, including physical plant and equipment and number of medical, scientific, and other personnel (by category) who are qualified, in your opinion, to work in the area with which we are concerned.
2. What, if any, research has your company conducted or sponsored during the past ten years toward the development of narcotic blockage and/or antagonistic drugs?
3. What research is presently being conducted by your company, or at the request of your company, toward developing narcotic blockage and/or antagonistic drugs?
4. What, if any, research does your company plan to sponsor, conduct or participate in, directly or indirectly, toward the developing narcotic blockage and/or antagonistic drugs?
5. What amount of money has been spent, from 1960 to date, by your company for actual research toward the development of narcotic blockage and/or antagonistic drugs?
6. Briefly describe, in general terms, the status and results of research referred to in questions 2 through 5, *supra*.
7. To the extent that your budget has been planned for the future, what amount of money has been allotted for the development of narcotic blockage and/or antagonistic drugs?
8. If funds were to be provided to your company to develop a narcotic blockage and/or antagonistic drug, what are the minimum and maximum dollar amounts your company would require to develop same as rapidly as possible?

Several schemes have been suggested to our Committee toward stimulating research by the private sector. I have personally suggested that it might be possible to develop an arrangement whereby the Federal Government would fund a portion or all of the original research costs with a private firm under a licensing agreement, whereby that firm would retain a license or patent to distribute the drug with the ancillary provision that once approval and distribution occurs, the company would, from initial profit, reimburse the Government for all monies originally advanced. This, or similar schemes for the stimulation of narcotics research by the private sector, obviously suggest many possible variations. We would like to benefit from your advice and counsel in this regard; and consequently, would greatly appreciate your considered judgment as to the types of programs which would be attractive to your firm in the development of drugs which might be helpful in the treatment and rehabilitation of narcotic addicts.

The Committee is convinced that all facets of the drug problem in America should receive the highest priorities. However, we are mindful that action is not necessarily progress, and the only way that we can take the most prudent steps is with your full cooperation. We would very much appreciate a response by July 1, 1971. The Chief Counsel to the Committee, Paul L. Perito (202-225-7955), or the Administrative Assistant Counsel, Jordan P. Rose (202-225-7954), will be glad to clarify or expand upon this request if you should so desire.

Kindest regards, and
Believe me,
Very sincerely yours,

CLAUDE PEPPER, *Chairman.*

(Whereupon, at 4 p.m., the hearings in the above-entitled matter were concluded.)

○

GENERAL BOOKBINDING CO.

BOSTON PUBLIC LIBRARY
3 9999 05706 0780